



Course evaluation template

After the course has ended, the course leader must fill in this template. The program director and education management will use your reflections to make adaptations to the program and/or the next time the course is given. The reflections will also be posted on the program web for students to read.

Course code 4FH090	Course title Theories of Science	Credits 2,5 hp
Semester VT22	Period 20220117–20220126	

Course leader Daniel Falkstedt	Examiner Daniel Falkstedt
Other participating teachers Melody Almroth, IMM Anna-Clara Hollander, GPH Dorien Beeres, KI	Other participating teachers

Number of registered students 44 (45?)	Number who have not completed the course¹ 2	Number passed after regular session² 39/44
Methods for student influence other than course survey³ Opportunity for questions, reflection, etc. during lectures and seminars, and also at the end of the last day in class		

¹ At the time of completed grading and mandatory assignments/revisions.

² After first summative examination.

³ State: how the students were given the opportunity to participate in the preparation and decisions at course level, how the students were given the opportunity to provide feedback on the course and how this forms the basis of the analysis and proposals below, response frequency (for example, concluding survey 70 % response frequency, post-it notes – improvement suggestions after the second course week 90 % response frequency, course council 85 % attendance).

Conclusions from the previous course evaluation

Some students raise the issue of overlap with content within the introductory course (Agerholm's course). We have gradually replaced content to counteract this, but some criticism remains. Therefore, we aim to design the included lectures and content even more around the key concepts from the philosophy of science, as related to public health research. In this way, we continue to strive for a good match between content and intended learning outcomes. The team of teachers has been made smaller, to better hold the contents together.

We provided five topics that the students should choose between for their final essay, instead of giving them complete freedom. This seems to have worked out well. The topics were in the form of potential empirical studies within public health science, either quantitative or qualitative.



Because of the ongoing pandemic, the course was given completely online via Zoom. The course room on Canvas was updated and hopefully improved as regards teaching materials, recommendations for self-studies, assignments, etc. Also, some connections with the introductory course were explicated.

Description of conducted changes since previous course occasion

As a course leader, I made an even greater effort to link course material (reading, Youtube videos), lectures, seminars, and assignments/examination. I deliberately pointed out and defined shortly the key concepts in the course several times (which some students seem to dislike).

Just like last year, the course had to be moved online because of the pandemic.

Because of the sad loss of philosophy teacher Robert Callergård, we had to look for a new teacher with short notice. Former master student and BA in philosophy Dorien Beeres Dorien made an excellent job as replacement, giving a very nice overview of the subject of philosophy of science.

(Note that until 2019 this course was part of the course *Science – theory, ethics and practice* (4FH079) given during the third semester of the Master's programme. In 2020, the choice was made to give *Theories of Science* as a focused course during the first year of the programme.)

Summary of the students' response to the course evaluation

(Graphs and selected quotes from course surveys and any other instruments can be added as appendices if required.)

The "quantitative" part of the evaluation (fixed response alternatives) shows results that are very similar to the corresponding evaluation last year, 2021. Based on this part, I cannot say that the students have become more satisfied with the course, nor more dissatisfied.

I make the interpretation that there is need for a better link between ILOs and content and examination tasks. This will have to be discussed with the programme director and GUA.

Further, the students' estimation of their own ability to communicate on the subject once the course was completed seems to motivate efforts for improvement. The same applies to the estimated value among the students of the knowledge and abilities taught in the course.

The course seems to be perceived as a little too short in relation to the need for discussion and reflection on this subject, which is philosophical and quite abstract.

The "qualitative" (open-ended) part of the evaluation pointed out the following:

- One lecture had already been given during the introductory course and was just repetition, according to a few responding students. This lecture may have to be removed, either from this course or from the introductory course.
- A few students write that the final assignment (the so-called theory essay) needs to be explained better – "a lot of confusion in the class". The course director's (Daniel's) expectations regarding this assignment need to be clarified, according to some students. (However, three higher-quality essays are provided as examples in Canvas.)



- Some students ask for more enthusiasm in the teaching, deeper subject knowledge and more room for discussion and reflection with the teachers. The online format (Zoom) may have had a negative effect on these aspects of the teaching.
- Some students ask for more discussion about how theory should be integrated into scientific manuscripts (which according to the students would facilitate the writing of the theory essay).
- A couple of students suggest that the course be merged with or can extend the introductory course in the program. This is justified, according to them, by overlapping content but also the relevance of the course content for the rest of the scientific learning in the program.

The course leader's reflections on the implementation and results of the course

Again, the course was given completely online via Zoom because of the pandemic situation in January. Like last year, we found that the participation rate was clearly high and also that almost all essays were written in reasonable agreement with the instructions. Only a few essays were failed.

Like past years, the course included two essay assignments, one short and semi-open and one longer (up to 2000 words) and allowing for more creativity. Through these assignments (aligning learning outcomes to examination), the students are given the opportunity to exercise their ability to think about the role and use of theory in public health science and to express this in clear and well-structured writing. Even though a few students dislike doing philosophy and therefore also dislike this assignment, I think the overall outcome has been good. Philosophy of science and the role of theory in science and public health science *is indeed* difficult.

Similar to last year, the students were provided a list of five suggested essay topics. Still, this gives them opportunity to use previous knowledge, interests and prerequisites for the essay. Based on the submitted essays, I find that almost all of the students succeeded in doing this. Some of the students, however, express dislike and confusion.

Course leader's conclusions and suggestions for improvement

Conclusions are seen above. Suggestions for improvement are:

- Discuss overlapping content and lectures with other course directors and programme director.
- Eliminate this overlap or turn it in to progressive learning.
- Further work with revision and clarification of the instructions for the final essay.
- For next year, we will have to find a teacher from philosophy doing the one day of teaching in the philosophy of science.
- Hopefully, classroom teaching will facilitate more enthusiasm and discussion in class next year. Nevertheless, the online format during the past two years seems to have increased the rate of students attending the lectures. A trade-off?

Other comments

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