# 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 | Course title | Credits |
|---|---|---|
| 4FH095 | Applied epidemiology 2 – determinants of health | 14 hp |

| Semester | Period |
|---|---|
| HT24 | 20241114-20250117 |

| Course leader | Examiner |
|---|---|
| Yajun Liang | Yajun Liang |
| **Other participating teachers** | **Other participating teachers** |
| Yvonne Forsell, Katalin Gémes, Chengxuan Qiu, Giulia Grande, Amaia Calderon Larrañaga, Davide Liborio Vetrano, Lisa Dinkler, Zhengan Lu, Ying Shang, Richard Bränström, Rickard Strandberg, Ruyue Zhang, Megan Doheny, Rui Wang, Jing Wu, Xin Xia | Yvonne Forsell |

| Number of registered students | Number who have not completed the course[1] | Number passed after regular session[2] |
|---|---|---|
| 23 | 1 | 22 |
| **Methods for student influence other than course survey[3]** Ask for feedback after each module, communicate with student representatitives | | |

[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
- *Insert reflections from previous course evaluation.*

Positive comments:
- Course leader kept track of the course and took the class concerns
- The assignment was good, and feedback was helpful

Negative comments:
- No immediate change after students' feedback.
- Too many group work/assignments
- The submodules were organized differently, CVD epi week were intense, but others were not (social and psychiatric epi)
- There was lack of recall of the methods given in first week

- Lack of time to digest the advance methods
- There was a lack of track or communications between courses in the program.
- Lecture room was small without window

## Description of conducted changes since previous course occasion

- Changed the structure from topic-specific to methods-specific.
- Added group discussion and article presentation for common designs (cross-sectional, case-control and cohort design) focusing on different study settings and including different topics.
- Removed the geriatric module, instead, added two mornings talking about case-control and cohort design on geriatric diseases
- Added 1-day sex/gender perspective
- Added half-day multilevel factors
- Shortened the social epi from 5 days to 1.5 days
- To reduce the intensity, I split the advanced statistical analysis into different weeks
- To give students more time for reflection, I planned more time for own study and reflections
- As a course leader, I followed through the whole course and had good communication with students about the questions during the course conduction
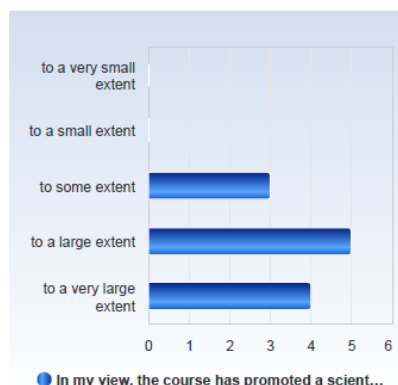
## Summary of the students' response to the course valuation

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

**Positive comments:**

**In my view, the course has promoted a scientific way of thinking and reasoning (e.g. analytical and critical thinking, independent search for and evaluation of information).**

| In my view, the course has promoted a scientific way of thinking and reasoning (e.g. analytical and critical thinking, independent search for and evaluation of information). | Number of responses |
|---|---|
| to a very small extent | 0 (0.0%) |
| to a small extent | 0 (0.0%) |
| to some extent | 3 (25.0%) |
| to a large extent | 5 (41.7%) |
| to a very large extent | 4 (33.3%) |
| Total | 12 (100.0%) |



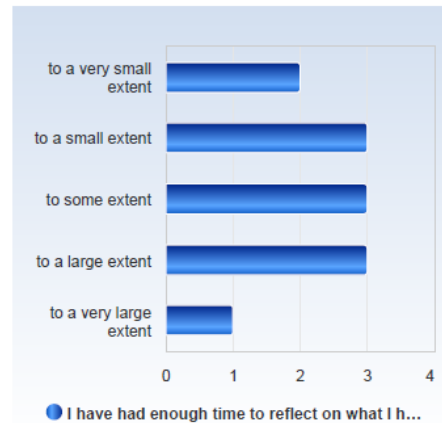● In my view, the course has promoted a scient...

- The structure of methods-specific was very good
- The students thought it was an important course to learn advanced methods in epidemiology

**Negative comments:**

**I have had enough time to reflect on what I have learned.**

| I have had enough time to reflect on what I have learned. | Number of responses |
|---|---|
| to a very small extent | 2 (16.7%) |
| to a small extent | 3 (25.0%) |
| to some extent | 3 (25.0%) |
| to a large extent | 3 (25.0%) |
| to a very large extent | 1 (8.3%) |
| Total | 12 (100.0%) |

I have had enough time to reflect on what I h...

- Social perspective didn't add much
- Too many group presentations of the same structure
- Too many mandatory sessions
- Little time to learn new concepts and new statistical models
- Some students didn't get good suggestions at the examination
- Lack of comprehensive overview of different statistical modelling at the start of the course
- Too demanding (different perspectives) in the final assignment

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

*Reflections on the course's strengths, weaknesses, opportunities, limitations within, for example, the following areas:*
- *How have the students' previous knowledge, experiences and prerequisites been used as a basis during the course?*

**Strengths and opportunities:** This course focuses on the application of epidemiological methods, which provide an opportunity for the students to use and reflect their previous knowledge on epidemiological methods and statistical skills. There were several ways of reflecting previous experiences:

During the lectures and seminars, the lecturers discuss with the students the methodological issues for which the previous knowledge is very much needed. For some statistical training in this course, their previous knowledge of statistical software and basic programing are needed as a basis. For the formative assignments and final examination, the students need to design a study which also needs their previous knowledge on epidemiological methods.

**Weaknesses and limitations:** There is a long interval between their previous courses on epidemiology/statistics and this one. Thus, some of the students forget about the previous knowledge. It takes them some time to recall.

- *In what way the work methods used during the course contribute to the students' attaining the learning outcomes? (Reflect on the selected learning activities and the students' type of engagement and presence in class)*

**Strengths and opportunities:** The way of teaching in this course includes lectures, statistical practice, article seminars, group discussion and presentations.

Through lectures and seminars, the students can learn the most commonly used epidemiological methods in different research areas. Through group work, the course also gives a lot of opportunities to work together to decrease the amount of work to put in, thus, scientific discussions and cooperation are encouraged.

There were several occasions (e.g., summary in each week, comments on individual assignments, and examination feedback) where the students were able to discuss how they have learned.

In addition, we have applied case-based teaching to discuss the methods used in different study settings and for different topics. For achieve the case-based learning, the students had both group assignment and individual assignment in each week.

**Weaknesses and limitations:** Many subjects can give an overwhelming feeling. The students were less active in the lectures but were more engaged in the article seminars and group discussions. We noticed the absence of lectures either online or in classroom had led to a worse performance of their final assignment.

Some students think that it is too intense to have both group assignments and individual assignments for the same week.

- *How has the course worked with -constructive alignment - from learning outcomes to examination form and examination content?*

**Strengths and opportunities:** The lecturers include active researchers from several different departments in KI and outside KI, and they are professional with a lot of expertise in their research areas. First, I coordinated with the lecturers responsible for some sessions (e.g., multilevel factors, genetic factors, and competing risk model) to list the learning outcomes, discuss the content, and organize the way of teaching. The form and content of formative assignment was based on the weekly learning outcomes, e.g., critical reading, group presentation, and individual study design. At the end, the final examination was decided based on the overall contents and learning outcomes from each week.

**Weaknesses and limitations:** After having changed the topic-oriented into method-oriented, the knowledge is a bit scattered within a week. It is a bit difficult to wrap up the week and design a weekly assignment at the end.

- *How do examinations and assessment criteria ensure that students achieve the learning outcomes of the course? (Reflect on the choice of examination form and formative assessments.)*

**Strengths and opportunities:** In each week, we assessed if the students could achieve the weekly learning outcomes through the formative assignments. At the end, we assessed the overall learning outcomes of the whole course through a big summative assignment by covering the formative information from each week. Through the weekly formative assignments and final examination, the students' progress in study design, analytical skills, and scientific writing can be clearly viewed.

**Weaknesses and limitations:** Some students either missed the critical session or forgot about the knowledge, and they didn't succeed in applying the knowledge in the final assignments. Since the course lasted over a long period, the students had less impression of what was given in the beginning. A recall session in the later module is needed to help the students to reflect the knowledge in the previous sessions.

## Course leader's conclusions and suggestions for improvement

The course has been restructured by using method-oriented and case-based teaching methods.

Some modification is needed for the next year:
1. Add weekly assignments as part of final grades.
2. Move the statistical training together, leave more time for students to practice and reflect.
3. Reorganize the group assignments by taking into account the group size and time.

## Other comments

Although I have reorganized the course structure for this year, I still need to adjust the way of assignments and examinations for the next year because the students will be doubled from next year.