



**Karolinska  
Institutet**

Course syllabus for

# **Epidemiological Methods for Outcome Evaluation of Public Health Interventions, 10 credits**

Epidemiologiska metoder för effektutvärdering av folkhälsoinsatser, 10 hp

This course syllabus is valid from autumn 2020.

Please note that the course syllabus is available in the following versions:

Autumn2020 , [Autumn2021](#) , [Autumn2023](#) , [Autumn2024](#)

Course code	4FH094
Course name	Epidemiological Methods for Outcome Evaluation of Public Health Interventions
Credits	10 credits
Form of Education	Higher Education, study regulation 2007
Main field of study	Public Health Sciences
Level	AV - Second cycle
Grading scale	Pass with distinction, Pass, Fail
Department	Department of Global Public Health
Decided by	Utbildningsnämnden PHS
Decision date	2018-11-09
Revised by	Education Committee GPH
Last revision	2020-04-07
Course syllabus valid from	Autumn 2020

## **Specific entry requirements**

A Bachelor's degree or a professional degree equivalent to a Swedish Bachelor's degree of at least 180 credits in public health science, healthcare or other relevant social sciences subject area. And proficiency in English equivalent to English B/English 6.

That the student has completed courses with approved results equivalent of 45 credits on the specific specialisation at the Master's Programme in Public Health Sciences.

In order to qualify for the registration in the course the student should have attended the courses 4FH083, 4FH082 and 4FH086 offered in the program, or should have acquired corresponding knowledge.

## **Objectives**

Overarching goal of the course is to provide the students with theoretical knowledge and practical skills for the evaluation of complex public health interventions. Upon completion of the course, the student should be able to:

- Formulate relevant questions related to outcome evaluation of specific projects/interventions
- Discuss pros and cons of different study designs to be employed in the evaluation, considering scientific robustness (e.g. causal inference), feasibility and costs
- Identify possible sources of bias (especially confounding) in establishing a causal role of the intervention on the chosen outcome
- Identify sources of information for an evaluation study
- Propose an evaluation plan, including methods for data collection and data analysis, given a specified public health project/intervention
- Motivate the proposal from the perspective of desired level of inference, validity of the results, decision-makers' need and costs
- Sketch a communication plan for the dissemination of the results of the evaluation in different contexts
- Describe the scientific and policy implications of the evaluation results

## Content

The course is composed of two parts:

1. Part 1 (3 weeks) consists of lectures, seminars, interactive workshops, focusing on the acquisition of theoretical knowledge (learning goals a-d)
2. Part 2 (3 weeks) consists of autonomous or group work with supervision, aiming at the development of an evaluation plan related to a real-life intervention (application case), to which the theoretical knowledge will be applied (learning goals e-h)

The application case consists of one of the following: 1. A planned intervention proposed by the student, 2. An ongoing or completed intervention proposed by the course leader, or 3. A simulation

Examples of public health areas of interest are: communicable diseases; tobacco smoking; hazardous use of alcohol; promotion of physical activity; overweight and obesity; prevention of injuries, reproductive health.

## Teaching methods

A combination of working methods will be used: lectures, seminars, group work, individual work under supervision; literature summaries; study visits; oral presentations.

The assignment during part 2 of the course is developed with discussions in groups, but the written task produced therein is individual (see examination).

Group work, seminars and study visits are compulsory. Absence from compulsory moments is to be compensated through individual tasks with similar learning goals.

## Examination

The course is concluded by an individual examination consisting of: a. a written evaluation plan, and b. an oral presentation of the same in front to teachers and students, allowing an in depth discussion of methods.

A grade "Pass" (G) in both moments a. and b. is required for the grade "Pass" in the whole examination. The grade "Pass with distinction" (VG) in both moments a. and b. is required for corresponding grade in the whole examination.

Students who have not passed the regular examination are entitled to participate in five more

examinations. If the student is not approved after four examinations, he/she is recommended to retake the course at the next regular course date, and may, after that, participate in two more examinations. If the student has failed six examinations/tests, no additional examination or new admission is provided.

The number of times that the student has participated in one and the same examination is regarded as an examination session. Submission of a blank examination is regarded as an examination. An examination for which the student registered but not participated in, will not be counted as an examination.

## **Transitional provisions**

Examination will be provided during a period of two years after a closure of the course. Examination may take place under the previous reading list during a period of one year after the date on which a major revision of the reading list.

## **Other directives**

Course evaluation will be carried out in accordance with the guidelines established by the Board of Education.

The course language will be English.

## **Literature and other teaching aids**

Compulsory course reading consists of scientific articles, reports and diverse materials related to the topic of the course. The reading material will be distributed during the course.