



**Karolinska
Institutet**

Course syllabus for

Methods for studying the distribution of health, 7.5 credits

Metoder för att studera sjukdomars förekomst och spridning, 7.5 hp

This course syllabus is valid from autumn 2015.

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

[Autumn2012](#) , [Autumn2013](#) , Autumn2015

Course code	4FH064
Course name	Methods for studying the distribution of health
Credits	7.5 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	Institute of Environmental Medicine
Decided by	Programnämnd 5
Decision date	2012-03-29
Revised by	Education Committee GPH
Last revision	2023-11-09
Course syllabus valid from	Autumn 2015

Specific entry requirements

Bachelor's degree or professional qualification worth at least 180 credits in public health science, healthcare or other relevant social sciences subject area. English language skills equivalent to English B at Swedish upper secondary school.

Objectives

After completion of the course, the student should be able to:

- estimate and interpret measures of disease occurrence.
- describe and discuss the key components of epidemiology (measures of disease occurrence, comparison of disease occurrence, epidemiological study designs, random and systematic error).
- discuss the application of epidemiological methods in different contexts, including etiological and descriptive purposes.
- be familiar with methods for collecting health data in Sweden and internationally and be able to discuss their cons and pros.

- distinguish between experimental and observational studies and describe the key characteristics of these studies
- draw basic conclusions from descriptive epidemiological concepts when critically reviewing scientific literature.

Content

The course aims to give knowledge about basic epidemiological methods and its different applications, including:

- measures of disease occurrence (prevalence, incidence, cumulative incidence)
- methods for collecting information on and monitoring of public health (registries, questionnaires, interviews, screening).
- methods for comparing disease occurrence across different determinants and populations
- sources of bias in epidemiological studies (random and systematic errors).
- interpretation of epidemiological findings, using real-world examples
- introduction to epidemiological study design (e.g. observational/experimental, cross sectional/prospective, ecological/individual based).

Teaching methods

The theories and concepts presented in lectures are applied and expanded upon in group exercises, group discussions, and reviews of scientific articles. Individual written tasks are given on a regular basis (e.g. every week).

Examination

Group tasks along with written individual tasks and a written examination.

The grade will be based on results from the written examination (70%) together with individual and group exercises (30%).

Compulsory participation

Quizzes and group work are compulsory. The course director assesses if and, in that case, how absence can be compensated. Before the student has participated in all compulsory parts or compensated absence in accordance with the course director's instructions, the student's results for the course/respective part will not be registered in LADOK.

Limitation of number of occasions to write the exam

The student has the right to write the exam six times. If the student has not passed the exam after four participations he/she is encouraged to visit the study advisor.

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

The course has been cancelled and was offered for the last time in the fall semester of 2016. Examination will be provided until the spring semester of 2025 for students who have not completed the course.

Other directives

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

The course language is English.

Literature and other teaching aids

Scientific articles will be distributed during the course.

Gordis, Leon

Epidemiology

4. ed. : Philadelphia : Elsevier/Saunders, cop. 2009 - xv, 375 s.

ISBN:978-1-4160-4002-6 LIBRIS-ID:10877647

[Library search](#)

Rothman, Kenneth J.

Epidemiology : an introduction

2. ed. : New York, NY : Oxford University Press, cop. 2012 - viii, 268 s.

ISBN:978-0-19-975455-7 (pbk. : alk. paper) LIBRIS-ID:13454717

[Library search](#)

Norell, Staffan

Workbook of epidemiology

New York ;a Oxford : Oxford University Press, 1995 - x, 317 s.

ISBN:0-19-507490-4 (inb.) LIBRIS-ID:4611326

[Library search](#)