



**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 2013.

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                 | Programnämnd 5                                  |
| Last revision              | 2013-04-03                                      |
| Course syllabus valid from | Autumn 2013                                     |

## **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:

- define and discuss the goals of public health and distinguish between basic, clinical and public health research,
- discuss the key components of epidemiology (population, distribution, determinants, and control of disease),
- describe the main elements of descriptive epidemiology and discuss the scientific and administrative uses of it,
- describe the major sources of health and administrative data, their cons and pros with Swedish and international registers and their components,

- estimate and interpret measures of disease occurrence.
- distinguish between experimental and observational studies and describe the key characteristics of these studies,
- draw conclusions from descriptive epidemiological concepts when critically reviewing scientific literature.

## Content

The course aims to give knowledge in methods for studying the occurrence and distribution of disease in theory and in practice. Focus of the content in the course is:

- measures of disease occurrence (incidence, prevalence and crude, adjusted and specific rates)
- different principles of public health surveillances - data (reliability, validity contents, accessibility etc), - purposes, -use of data (registers, surveys, interviews etc)
- Comparison across populations (time trend, geographical)
- Level of inferences in descriptive epidemiology
- Sources of bias in descriptive epidemiological studies
- Validity and precision
- Introduction to common designs and concepts for etiological epidemiology.

## Teaching methods

The theories and concepts presented in lectures are applied, explored, and expanded upon in group exercises, group discussions, and reviews of scientific articles.

## Examination

Group tasks along with written and oral individual tasks.

The grade will be an average of these.

Compulsory participation

Quizzes and group works 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

After each course occasion there will be at least six occasions for the examination within a 2-year period from the end of 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

*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](#)

### **A dictionary of epidemiology**

*Last, John M.*

4. ed. : Oxford ;a New York : Oxford University Press, 2001 - xx, 196 s.

ISBN:0-19-514168-7 LIBRIS-ID:4615039

[Library search](#)