



**Karolinska
Institutet**

Course syllabus for

Epidemiological methods for studying determinants of health, 7.5 credits

Epidemiologiska metoder för att studera sjukdomars bestämningsfaktorer, 7.5 hp

This course syllabus is valid from spring 2013.

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

Spring2013 , Spring2016

Course code	4FH066
Course name	Epidemiological methods for studying determinants 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	2013-01-18
Course syllabus valid from	Spring 2013

Specific entry requirements

Bachelor of science or professional qualification of at least 180 credits within public health, health care, or a subject area relevant to social sciences. Furthermore, knowledge in English equivalent to English B (with at least the Pass grade) is required.

Objectives

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

- formulate principles of various types of common epidemiological study designs, and describe their strengths and weaknesses,
- calculate and interpret measures on disease occurrence and relationships, and describe how a specific measure is influenced by the study design,
- describe theoretical models for causality and discuss principles of causal mechanisms
- identify and explain various types of sources of errors in epidemiological studies,
- explain and discuss epidemiological concepts including validity and precision related to different epidemiological study designs,
- draw conclusions from epidemiological scientific articles and summarise and review these critically based on study design, results, validity and precision.

Content

The course focuses on epidemiological theory and practice. It contains principles of design, analysis and interpretation of epidemiological studies. The course introduces the concept of causality, concepts related to study basis, measures on disease occurrence and measures on relationships, effect modification, common designs for epidemiological studies (cohort studies, case control studies, cross-section studies) and the importance of various types of sources of errors.

Teaching methods

The course focuses on active learning i.e. to turn knowledge into practice and critical reflection. Different strategies for learning will be used such as lectures, seminars, group discussions and various types of group work with selected themes.

Examination

To pass on the course the student should show that the expected learning outcomes have been achieved. Four examination forms are used: group assignments, written and oral individual assignments and written examination.

Group assignments and seminars are compulsory. An oral presentation of an individual assignment, a written summary of the individual assignment and to be student opponent on another student's individual assignment is also compulsory. These compulsory assignments are graded with Fail/Pass. Written examination is graded with Fail/Pass/Pass with distinction.

Compulsory participation

The course director assesses if and how absence from compulsory parts can be compensated. Before the student has participated in compulsory parts or compensated absence in accordance with the course director's instructions the student's course results will not be reported to LADOK.

Limitation of number examination sessions

The student has the right to participate in six examination sessions. If the student has not passed after four examination sessions, the student is urged to visit the study adviser.

Every time the student participates in the same test counts as an examination session. Submission of blank exam is counted as examination session. Examination session to which the student has registered but not participated in will not be counted as an examination session.

Transitional provisions

After each course, there will be at least 6 occasions for examination within a 2-year period after the end of the course.

Other directives

Course evaluation is carried out according to the guidelines that are established by the Board of education.

The course is given in English.

Literature and other teaching aids

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](#)

Rothman, Kenneth J.

Epidemiology : an introduction

New York : Oxford University Press, 2002 - viii, [3], 223 s.

ISBN:0-19-513553-9 LIBRIS-ID:8277144

[Library search](#)