



DEPARTMENT OF ENVIRONMENTAL MEDICINE

C6F3138 Epidemiology II. Design of Epidemiological Studies, 1.5 credits (hec)

Epidemiologi II. Design av epidemiologiska studier, 1,5 högskolepoäng

Third-cycle level / Forskarnivå

Approval

This syllabus is approved by the The Committee for Doctoral Education on 2023-11-27, and is valid from Spring semester 2024.

Responsible department

Department of Environmental Medicine, Faculty of Medicine

Prerequisite courses, or equivalent

Knowledge in epidemiology equivalent to "Epidemiology I: Introduction to epidemiology" or corresponding courses.

Purpose & Intended learning outcomes

Purpose

The course focuses on key considerations in designing and critically interpreting different types of case-control studies, as well as matching in cohort and case-control studies.

Intended learning outcomes

After successfully completing this course you as a student are expected to be able to:

- in a self-directed manner, formulate the principles of different types of common epidemiological study designs.
- mainly independently, explain how a specific measure of disease occurrence and measure of association is governed by the study design.
- in a self-directed manner, explain and discuss epidemiological concepts, including accuracy, in the context of different epidemiological study designs.
- draw conclusions from epidemiological scientific papers and to review and criticize these regarding study design, results and accuracy.

Learning outcomes are classified according to Bloom's taxonomy: knowledge, comprehension, application, analysis, synthesis, and evaluation.

Course content

The course focuses on issues related to study design with emphasis on case-control methodology and different types of sampling strategies, study base, study efficiency, matching in epidemiological studies, induction time, interpretation of epidemiological evidence.

Forms of teaching and learning

Lectures, group discussions and various forms of group exercises on selected topics, will be used. The course focuses on active learning, i.e. putting knowledge into practice and critically reflecting upon the knowledge, rather than memorising facts.

Language of instruction

The course is given in English.

Grading scale

Pass (G) /Fail (U)

Compulsory components & forms of assessment

Compulsory components

The individual examination.

Forms of assessment

To pass the course, the student has to show that the learning outcomes have been achieved. Assessments methods used are group tasks (formative assessments) along with a written individual task (summative assessment). The examination is viewed as a contributing to the development of knowledge, rather than as a test of knowledge. Students who do not obtain a passing grade in the first examination will be offered a second examination within two months of the final day of the course. Students who do not obtain a passing grade at the first two examinations will be given top priority for admission the next time the course is offered.

Course literature

Suggested course literature

Rothman KJ. Epidemiology: an introduction. New York: Oxford University Press, 2002.
Lash TL, VanderWeele TJ, Haneuse S, Rothman KJ. Modern Epidemiology, 4th Edition, Wolters Kluwer, 2021.

Scientific papers will be distributed before and during the course.