DEPARTMENT OF MEDICAL EPIDEMIOLOGY AND BIOSTATISTICS

C8F3041, Epidemiology I: Introduction to Epidemiology, 1.5 credits (hec)

Epidemiologi I: Introduktion till epidemiologi, 1,5 högskolepoäng

Third-cycle level / Forskarnivå

Approval

This syllabus was approved by the The Committee for Doctoral Education on 2023-11-16, and was last revised on 2024-06-10. The revised course syllabus is valid from autumn semester 2024.

Responsible department

Department of Medical Epidemiology and Biostatistics, Faculty of Medicine

Prerequisite courses, or equivalent

No prerequisite courses, or equivalent, demanded for this course.

Purpose & Intended learning outcomes

Purpose

The aim of the course is to give an introduction to epidemiological theory and practice.

Intended learning outcomes

After successfully completing this course students are expected to be able to:
-give examples of the contribution of epidemiology to science and discuss the importance of epidemiology as a research discipline.
-estimate and in a general way interpret measures of disease occurrence and measures of association, and describe how a specific measure is governed by the study design.
-explain strengths and weaknesses of common epidemiological study designs.
-identify and explain possible sources of bias in epidemiological studies.
-describe theoretical models for causation and discuss the principles of causal mechanisms.
-apply knowledge of epidemiological concepts when critically reviewing scientific literature.

Course content

The course gives an introduction to epidemiological theory and practice. It comprises basic principles regarding design, interpretation, and analysis of epidemiological studies. It introduces the concept of causation, concepts related to measures of disease occurrence and measures of association, common designs for epidemiological studies (with main focus on cohort studies), and the role of bias.

Forms of teaching and learning

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

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 (summative assessment) is compulsory.

Forms of assessment

To pass the course, the student has to show that the learning outcomes have been achieved. Assessments methods used are group assignments (formative assessments) along with an individual examination (summative assessment). The examination is viewed as 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 chance to resubmit the 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

Rothman KJ. Epidemiology: An Introduction. 2nd ed. Oxford, UK: Oxford University Press; 2012.
Scientific articles will be distributed before and during the course.