Faculty of Medicine

MPHP53, Public Health: Epidemiology, 7.5 credits

Folkhälsovetenskap: Epidemiologi , 7,5 högskolepoäng

Second Cycle / Avancerad nivå

Details of approval

The syllabus was approved by The Master's Programmes Board on 2026-03-10. The syllabus comes into effect 2026-03-10 and is valid from the autumn semester 2026.

General information

Compulsory component of the Master's Programme in Public Health.

Language of instruction: English

Main field of study	*Specialisation*
Public Health Science	A1N, Second cycle, has only first-cycle course/s as entry requirements

Learning outcomes

Knowledge and understanding

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

- explain basic concepts and key epidemiological study designs used in public health research,
- describe how epidemiological methods contribute to understanding the determinants of health at individual, group and population levels,
- explain validity, bias and causality in epidemiological research,
- describe basic principles of data management in epidemiological research, including data structure, data quality and documentation.

Competence and skills

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

- select appropriate epidemiological study designs to address current research questions in public health,
- design basic questionnaire or other data collection tools,
- interpret results from epidemiological studies using key concepts and methodological principles,
- plan an epidemiological research project with an appropriate study design and method, and present this, together with ethical considerations, in a pilot protocol,
- communicate epidemiological results in writing and orally.

Judgement and approach

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

- assess the strengths and limitations of different epidemiological approaches within varying public health contexts,
- assess the ethical principles and considerations relevant to epidemiological research,
- reflect on how to ensure the responsible, transparent and ethical handling of epidemiological data when AI-supported tools are used.

Course content

During the course, students are introduced to epidemiological research methods within public health sciences, with a focus on fundamental epidemiological thinking, study design, causality, the interpretation of health data and ethical considerations. Key concepts in epidemiology are explored through examples from current public health issues, and the course highlights how different study designs can be used to answer public health-related research questions.

Furthermore, the course covers principles of data management, data quality and documentation, as well as how responsible, transparent and ethical handling of epidemiological data can be ensured when AI-supported tools are used.

The course content covers fundamental principles for the critical appraisal of research studies and research protocols.

Course design

The course is based on a student-centred and active learning approach, where teaching aims to support students' understanding through dialogue, reflection and the application of key epidemiological concepts.

Teaching consists of lectures and seminars that integrate various student-active teaching methods. These include question and answer sessions, case- and design-based group exercises, components inspired by Team Based Learning (TBL), journal clubs where students lead discussions on scientific journal articles, and peer review of draft protocols.

Through seminars, tutorial sessions and student presentations, continuous feedback is provided on the student's learning process. Case-based discussions and group exercises are used to translate epidemiological principles into practical reasoning and to deepen understanding of study design and data management.

Compulsory components consist of active participation in seminars, as these provide an opportunity to assess the skills required to achieve the learning outcomes. In the event of absence from compulsory components, the examiner may decide to offer a supplementary assignment in connection with the course.

Assessment

The course is assessed through three assessed components:

- Written exam, 2.5 credits
  Fail/Pass/Pass with distinction
  Assesses the student's knowledge and understanding of key epidemiological concepts and study designs.

- Individual written take-home assignment, 3.5 credits
  Fail/Pass/Pass with distinction
  Assesses the student's ability to plan an epidemiological study with an appropriate study design, choice of methods and ethical considerations.

- Course portfolio, 1.5 credits
  Fail/Pass
  Assesses the student's ability to apply, analyse and interpret epidemiological methods and studies, evaluate the strengths and limitations of different epidemiological approaches, and communicate epidemiological reasoning and results orally and in writing within the framework of various student-centred activities.

The examiner, in consultation with Disability Support Services, may deviate from the regular form of examination in order to provide a permanently disabled student with a form of examination equivalent to that of a student without a disability.

Grades

Grading scale includes the grades: Fail, Pass, Pass with distinction
To achieve a grade of 'Pass with Distinction' (VG) for the entire course, students must obtain a VG grade in the written exam and a VG grade in the individual written take-home assignment, and the course portfolio must be approved.

To achieve a grade of 'Pass' (G) for the entire course, students must obtain a G grade in all assessed components.

Entry requirements

A Bachelor's degree comprising at least 180 credits, as well as English B.