



UNIVERSITY OF GOTHENBURG
THE SAHLGRENSKA ACADEMY

Life course epidemiology, 4,5 higher education credits

Third cycle

1. Confirmation

The syllabus was confirmed by the Council for Research Education on 2013-09-13 to be valid from spring semester 2014

Responsible institute: Sahlgrenska akademien

2. Position in the educational system

The course is an elective course within the Third cycle at the Sahlgrenska Academy.

3. Entrance qualifications

Admitted to postgraduate education

Preference is given to applicants from the University of Gothenburg, the Aging Research Center (ARC) in Stockholm as well as from the Centre for Ageing and Supportive Environments (CASE) FAS centre in Lund and the Swedish Brain Power (SBP). Remaining positions are available to other candidates.

4. Course content

In recent years, epidemiological research has increasingly focused on the connection over time, which may vary, and that early exposure can have both more immediate and later effects in life. This course focuses particularly on how factors at different periods in life can affect later outcomes in health and function.

The course will allow the students to obtain more in-depth knowledge of major aspects of life course epidemiology and will stimulate them to find out new research ideas where this kind of approach could be useful. Students are also expected to demonstrate their ability to analyze the theoretical foundations and methodological issues relevant to their studies in the field.

Besides including lectures on epidemiological and statistical methods which best suit a life course approach, the course will include several topics, covered from a life course point of view. These classes will be in the field of: nutrition, early life influence on subsequent disease risk, ageing, cardiovascular health and cognitive health.

5. Learning outcomes

After completing the course the student is expected to be able to:

Knowledge and understanding

- to demonstrate and understand the inter-disciplinary nature of life course epidemiology
- to demonstrate an understanding of interacting effect of biological and social environmental factors on individuals' health and disease outcome throughout life course.
- to be able to describe key epidemiological assumptions and theories about how genetic and environmental factors can influence individuals' health and function throughout life.
- to demonstrate an understanding of how epidemiological predictors can vary throughout life and relate this to

underlying physical, mental, cognitive and social processes and how they can interact and be influenced by moderating factors during childhood, adolescence, and early or late adulthood.

Skills and abilities

- to be able to analyze current research on the relationship between health changes and health factors and risk factors.
- to critically analyze and evaluate longitudinal epidemiological studies on the relationship between health changes and lessons learned from various exposures and effects.
- to formulate research questions appropriate to the life course approach, apply relevant conceptual models and analytic methods.
- to demonstrate familiarity with current issues, methodological problems and opportunities for data analysis in their own research.

Judgement and approach

- To identify, develop and analyze inter-disciplinary data that cover both the early development period of life as well as exposures in later life.

6. Required reading

See appendix I

7. Assessment

All taught moments in the course can form the basis for examination. Assessment is through active participation in lectures, the writing of an individual assignment, the participation to group works and the preparation for final seminars.

A student has the right to request a change of examiner if failed twice on the same exam, if this is practically possible. Such a request should be put forward in writing and addressed to the department.

The number of examination opportunities is limited to three. Also in case a course has been terminated or has been subject to major revisions, the student will be guaranteed at least three examination opportunities (including the regular examination opportunity) during a period of at least one year from the point of view of the course's previous design.

A student who has failed a test twice has the right to change examiners, if it is possible. A written application should be sent to the Institute.

8. Grading scale

The grades are Pass or Fail.

9. Course evaluation

The course leaders are responsible for giving the graduate students the opportunity to do a course evaluation at the end of the course. Course evaluation is carried out in writing with the aid of the Sahlgrenska Academy's joint course evaluation, and orally via a dialogue with the students. The teachers responsible for the course will compile an analysis of course evaluations and makes suggestions for the development of the course. Analysis and suggestions will be conveyed and published on the University of Gothenburg's learning platform (GUL).

10. Additional information

Attendance is mandatory at scheduled moments. Absences must be made up by arrangement with the course organizers. Course literature and schedule will be announced before the start of the course.

Lectures and seminars are taught in English.

The course is offered at the University of Gothenburg and is part of both the EpiLife and the ARC research schools as well as in collaboration with the Centre for Ageing and Supportive Environments (CASE) FAS center in Lund and the Swedish Brain Power (SBP), the national network on neurodegenerative diseases.

