



**Karolinska  
Institutet**

Course syllabus for

## **Public Health Sciences 4, 15 credits**

Folkhälsovetenskap 4, 15 hp

This course has been cancelled, for further information see Transitional provisions in the last version of the syllabus.

Course code	1FH005
Course name	Public Health Sciences 4
Credits	15 credits
Form of Education	Higher Education, study regulation 2007
Main field of study	Public Health Sciences
Level	G2 - First cycle 2
Grading scale	Pass with distinction, Pass, Fail
Department	Department of Global Public Health
Decided by	Programnämnden för folkhälsovetenskap
Decision date	2008-10-14
Revised by	Education committee PHS
Last revision	2018-10-09
Course syllabus valid from	Spring 2009

### **Specific entry requirements**

Ma C, Eng B with at least the Pass grade/3

### **Objectives**

Part 1: Quantitative Methods, 7.5 HE credits.

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

- apply appropriate univariate and multivariate statistical methods to describe and analyse a public health problem
- apply appropriate epidemiological and biostatistical methods to evaluate an intervention
- carry out appropriate statistical calculations within descriptive, analytical and interventive epidemiology
- apply appropriate methods to make statistical inference
- utilise the statistical software SPSS to process, describe and analyse public health data
- compile and critically discuss results of an epidemiological/biostatistical nature

Part 2: Qualitative Methods, 7.5 HE credits.

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

- independently carry out a literature study of relevance to a selected problem area for one's own essay

on the basis of a qualitative approach

- analyse study design, applied methods and quality aspects in public health articles based on a qualitative method
- describe and apply different approaches and methods for qualitative research
- carry out and in a group report a delimited observation study
- be familiar with principles of the analysis of different forms of documents of relevance for public health
- understand principles and strategies for content analysis of texts, and be able to apply relevant analysis methods in the degree project

## Content

The course, that consists of two different parts, should contribute with an advancement of knowledge how qualitative and quantitative methods can be applied in research within the public health area. It should also be a support for work with the future individual degree project, and to be able to use qualitative and quantitative methodology in the evaluation of interventions.

Part 1: Quantitative Methods, 7.5 HE credits.

The part intends to provide advanced knowledge both theoretically and as an application in descriptive, analytical and interventional epidemiology and biostatistical methods in these contexts.

Descriptive epidemiology and statistics; Measures of disease occurrence, Confounding, Standardisation, Stratification

Analytical epidemiology and statistics; Study design (cross-sections, case control, cohort), odds ratios, relative risk

Inference with univariate methods; parametric methods (confidence intervals, T-tests, correlation, ANOVA, Chi-square) and non-parametric methods (Mann-Whitney U, Wilcoxon, Kruskal Wallis). Inference with multivariate methods (multiple linear regression, logistic regression)

Preventive epidemiology and statistics; Experimental study design, sample size, evaluation of interventions (paired sample t-test, effect size, odds ratios, regression)

Using SPSS for univariate and multivariate analyses. In the course, individual literature studies of how qualitative studies have been carried out before around the problem area that the student has chosen for his/her degree project are conducted and reported.

Part 2: Qualitative Methods, 7.5 HE credits.

The research interview as a data collection method will be highlighted, based on literature and practical experiences of researchers and previous students who applied this method in completed and ongoing studies.

Moreover, the part includes an introduction of observation as a method for data collection for studies in public health, and plan, carry out and report a limited study of this kind.

In addition to the above, examples of how printed sources in the form of policy documents and mass media can be used as a research method in the public health science area are brought up, as well as review and application of principles and methods for implementation of qualitative analyses of texts. Also, quality aspects of qualitative studies, based on central concepts in the area, will be treated.

## Quantitative Methods, 7.5 hp

Grading scale: VU

## Qualitative Methods, 7.5 hp

Grading scale: VU

## Teaching methods

Part 1: Quantitative Methods, 7.5 HE credits.

Lessons, computer excersises and group assignment

Part 2: Qualitative Methods, 7.5 HE credits.

The part consists of lectures, group assignment, individual work in the form of an analysis of completed studies of relevance to a selected problem area for the thesis, and individual knowledge acquisition via a reading list related to the chosen topic of the thesis.

## Examination

Part 1: Quantitative Methods, 7.5 HE credits

a) by means of SPSS, the student should be able to apply appropriate univariate and multivariate methods to describe and analyse public health problems and present the result in writing and critically discuss it. The student should, in addition to this, demonstrate an understanding of various intervention models and methods to evaluate interventions.

b) Active participation in lectures/seminar/group assignments

Part 2: Qualitative Methods, 7.5 HE credits.

This part is examined in seminars, both through a minor observation study in a group, reviewed by another group, and through an individual assignment submitted individually in writing, to be presented orally, too. Furthermore, attendance is compulsory at the two seminars in which the group assignment and the individual work are presented and discussed. Any absence from a seminar is compensated for by an individual assignment

In this part, the grades Failed/Passed/Passed with distinction are used For a Pass with distinction on the whole course, Pass with distinction is required for both parts.

## Transitional provisions

The course has been cancelled and was offered for the last time in the spring semester of 2015.

## Other directives

KI's guidelines and tools for evaluation are used.

## Literature and other teaching aids

*SPSS online guide*

URL: [Länk](#)

*Woodward, M. q (Mark)*

**Epidemiology : study design and data analysis**

2nd ed. : Boca Raton, FL : Chapman & Hall/CRC, 2005 - xxii, 849 s.

ISBN:1-58488-415-0 (alk. paper) LIBRIS-ID:9480238

[Library search](#)

**Övrigt material delas ut under kursens gång**

*Denscombe, Martyn*

**Forskningshandboken : för småskaliga forskningsprojekt inom samhällsvetenskaperna**

Lund : Studentlitteratur, 2000 - 292 s.

ISBN:91-44-01280-2 LIBRIS-ID:8352880

[Library search](#)

*Kvale, Steinar*

**Den kvalitativa forskningsintervjun**

*Torhell, Sven-Erik*

Lund : Studentlitteratur, 1997 - 306 s.

ISBN:91-44-00185-1 LIBRIS-ID:8352544

[Library search](#)

*Vetenskapsrådet*

**CODEX. Regler och riktlinjer för forskning. Tillgänglig [online]**

2008

URL: [Länk](#)

**Övrigt material delas ut under kursens gång**

*Dahlgren, Lars; Emmelin, Maria; Winkvist, Anna*

**Qualitative methodology for international public health**

Umeå : Epidemiology and Public Health Sciences, Health Sciences, Departement of Public Health and Clinical Medicine, Umeå University, c 2004 - 219 s.

ISBN:91-7305-776-2

[Library search](#)

*Yin, Robert K.*

**Fallstudier : design och genomförande**

Malmö : Liber, cop. 2007 - 208 s.

ISBN:978-91-47-08643-6 LIBRIS-ID:10372763

URL: <http://www2.liber.se/bilder/omslag/100/4708643o.jpg>

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