Course syllabus for

Quantitative methods, 7.5 credits

Kvantitativ metod, 7.5 hp
This course has been cancelled, for further information see Transitional provisions in the last version of the syllabus.
Please note that the course syllabus is available in the following versions:
Autumn2007 , Spring2011

Course code	4FH006
Course name	Quantitative methods
Credits	7.5 credits
Form of Education	Higher Education, study regulation 2007
Main field of study	Public Health Sciences
Level	AV - Second cycle
Grading scale	Pass with distinction, Pass, Fail
Department	Department of Global Public Health
Decided by	Arbetsgruppen för masteprogrammet i folkhälsovetenskap
Decision date	2007-05-10
Course syllabus valid from	Autumn 2007

Specific entry requirements

Bachelor's degree or vocational training corresponding to 180 ECTS credits (120 credits in previous Swedish system)in public health sciences, health care, or another relevant medical or social science subject area.

Objectives

The aim of this course is to provide students with detailed knowledge in theoretical and applied descriptive, analytic and preventive epidemiology relevant in public health sciences Upon completion of the course, students should be able to: - apply relevant univariate and multivariable methods to describe and analyse a public health problem - design appropriate epidemiologic study to evaluate public health interventions - apply relevant methods to draw statistical inference in relation to analytic and preventive epidemiology - use statistical package SPSS to describe and analyse public health data - communicate and critically discuss in writing results of epidemiologic and statistical nature

Content

Descriptive epidemiology: Measures of disease occurrence, systematic and random errors, confounding, standardisation, stratification, distributions Analytical epidemiology: Observational study designs,

causality, inferential statistics at the univariate level, inferential statistics at the multivariable level Preventive epidemiology: Non-experimental design, experimental study designs, sample size estimation; evaluation methods for intervention studies Introduction to Statistical package SPSS: Input, transformation, description and analysis of data

Teaching methods

The course includes lectures, group work and data application in SPSS. The course will be given on location and by internet with the teaching methods and examination procedures adapted accordingly. The teaching methods to be used is distance learning via internet (ping-pong) with guided individual reading, exercises, power-point lecture materials and data application in SPSS.

Examination

The course will be examined with an individual project work. Using SPSS, students are required to apply appropriate methodology to describe and analyse a public health problem, draw statistical inference, and present and critically discuss the results in a short report. In addition, the students are expected to design appropriate intervention to solve the problem and suggest appropriate statistical methodology for evaluating the intervention. On the event of a failure, students will be given two extra opportunities to re-sit the examination during the same course period.

Literature and other teaching aids

Woodward, M. q (Mark)

Epidemiology : study design and data analysis

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

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