Course syllabus for

Research methodology, 7.5 credits

Forskningsmetodik, 7.5 hp
This course syllabus is valid from autumn 2017.
Please note that the course syllabus is available in the following versions:
Autumn2008 , Autumn2011 , Autumn2015 , Autumn2017 , Autumn2019 , Autumn2020 , Autumn2022

Course code	3GB001
Course name	Research methodology
Credits	7.5 credits
Form of Education	Higher Education, study regulation 2007
Main field of study	Global Health
Level	AV - Second cycle
Grading scale	Fail (U), pass (G) or pass with distinction (VG)
Department	Department of Global Public Health
Decided by	Programnämnden för folkhälsovetenskap
Decision date	2008-09-29
Revised by	Education committee PHS
Last revision	2017-03-22
Course syllabus valid from	Autumn 2017

Specific entry requirements

Bachelor's degree or a professional degree equivalent to a Swedish Bachelor's degree of at least 180 credits. And proficiency in English equivalent to English B/English 6.

Objectives

After completion of the course the student should be able to:

- Describe how to design, collect and analyze data in qualitative and quantitative projects.
- Use appropriate statistical methods for the analysis of different data sets, interpret and present findings from statistical analyses in a clear, concise, and logical manner.
- Identify problems caused by systematic errors, bias and confounding in interpreting epidemiological data.
- Describe and discuss key characteristics of qualitative data collection methods and reflect on their main advantages and challenges
- Describe key characteristics of main qualitative analysis methods including the role of the researcher in the process of analysis
- Assess strengths and limitations of different sources of epidemiological and qualitative data on health

status & health care utilization in low, middle, and high-income countries.
- Compare qualitative and quantitative approaches and understand when these are best used singly or in combination

Content

During the course following will be covered:

- Study design: cross-sectional, case-control, cohort, and intervention studies.

- Measures of disease frequency and risk, and alternative sources of epidemiological data.

- Interpretation of epidemiological and statistical concepts as causality, random errors, bias, confounding.
- Describing univariate and bivariate data: tables and graphs; proportions; measures of central tendency (mean, median), and variability (range, standard deviation, percentiles); correlation coefficients, differences and ratios.
- Statistical inference: confidence intervals and p-values, hypotheses tests.

- Simple and multiple linear and logistic regression analysis.
- Statistical analyses using software SPSS.
- Qualitative research methods: observational method, interviews, focus group discussions, participatory methods.

- Measures of illness perceptions and experiences; participant accounts of everyday life
- Describing the data collection process; sampling principles; the role of gatekeepers; the interactions between researcher and researched; the links between theory and method
- Qualitative data analysis, validity and triangulation in qualitative research

Teaching methods

Learning activities include lectures, group work and practical sessions.

Examination

Written examination. The exam will consist in three sections: biostatistics, epidemiology and qualitative methods. To pass the exam, the student needs to obtain at least 65% of the total score and at least 60% of the score in each section. To pass with distinction, the student has to achieve at least 90% of the total score and at least 60% of the score in each section.

Limitation of number of occasions to write the exam
The student has the right to write the exam six times. If the student has not passed the exam after four participations he/she is encouraged to visit the study advisor.

The number of times that the student has participated in one and the same examination is regarded as an examination session. Submission of a blank examination is regarded as an examination. An examination for which the student registered but not participated in will not be counted as an examination.

Transitional provisions

Examination will be provided during a time of two years after a possible cancellation of the course. Examination can take place according to an earlier literature list during a time of one year after the date when a major renewal of the literature list has been made.

Other directives

Course evaluation will be carried out in accordance with the guidelines established by the Board of Education.

The course language is English.

Literature and other teaching aids

Bonita, Ruth; Beaglehole, Robert; Kjellström, Tord
Basic epidemiology

2. ed. : Geneva : World Health Organization, cop. 2006 - xi, 213 s.
ISBN:92-4-154707-3 LIBRIS-ID:10467517
Library search

Health research methodology : a guide for training in research methods.

2nd ed. : Manila : WHO, ,c 2001 - IX, 237 s.
ISBN:92-9061-157-X LIBRIS-ID:9468534
Library search

Pagano, Marcello; Gauvreau, Kimberlee
Principles of biostatistics

2. ed. : Pacific Grove : Duxbury, cop. 2000 - xvi, 525 s. , [42] s.
ISBN:0-534-22902-6 ; No price LIBRIS-ID:5036554
Library search

Green, Judith; Thorogood, Nicki
Qualitative methods for health research

3rd ed. : Los Angeles : SAGE, 2014 - xvii, 342 p.
ISBN:9781446253090 LIBRIS-ID:16402151
Library search

Koch, Lene.; Vallgårda, Signild
Research methods in public health

1. edition. : Copenhagen : Gyldendal Akademisk, 2008. - 298 p.
ISBN:978-87-628-0794-5 LIBRIS-ID:12334668
Library search