



**Karolinska
Institutet**

Course syllabus for

Collecting and Organizing Epidemiological Data, 7.5 credits

Insamling och hantering av epidemiologiska data, 7.5 hp

This course syllabus is valid from autumn 2022.

Please note that the course syllabus is available in the following versions:

[Autumn2019](#) , [Autumn2022](#) , [Autumn2023](#) , [Autumn2024](#)

Course code	4FH084
Course name	Collecting and Organizing Epidemiological Data
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	Utbildningsnämnden PHS
Decision date	2018-10-09
Revised by	Education Committee GPH
Last revision	2022-03-09
Course syllabus valid from	Autumn 2022

Specific entry requirements

A Bachelor's degree or a professional degree equivalent to a Swedish Bachelor's degree of at least 180 credits in public health science, healthcare or other relevant social sciences subject area. And proficiency in English equivalent to English B/English 6.

Objectives

The aim of the course is to provide both theoretical and practical skills on quantitative data collection methods as well as an orientation of how to handle collected data in a structured and ethical way.

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

- Understand key theoretical concepts regarding survey methodology, data collection and questionnaire design
- Apply the normative principles prevailing in research on human subjects to different types of methodologies in public health research.

- Comprehend and utilize the basic principles of sampling (i.e. sample size calculation and sample selection methods) in cross-sectional surveys
- Explain and demonstrate elements needed for informed consent
- Design, plan and implement a questionnaire for a survey on a specific topic
- Collect and analyze data from an observational study

Content

The course gives theoretical and practical knowledge and skills around quantitative data collection methods, within the public health field. The course will cover the most important theoretical issues regarding survey methodology, data collection, questionnaire design, and sampling, including sampling selection, sample size calculation, response rates, ethical review process and informed consent. Time will also be devoted to work on group and individual assignments. The purpose of the individual assignment is to design and pre-test a questionnaire, and to build the corresponding database based on your research interest. The purpose of the group assignment is to get a practical experience of the process of survey design and data collection. Throughout the course students are required to reflect upon and consider the ethical aspects of quantitative data collection methods. Canvas will be used to provide instructions and feedback for the assignments, and to upload relevant materials.

Teaching methods

A combination of techniques will be used depending on the specific topics aiming to engage students in the teaching-learning process to promote reflective thinking and active collaborative education following a deep approach to learning. This includes the individual and group assignments, peer assessment, but also interactive and traditional lectures.,

Examination

The examination will consist of three components:

- Individual assignment graded as fail, pass, and pass with distinction.
- Group assignment and presentation graded as fail and pass
- Individual written final exam graded fail (<65%) pass (65-89%), and pass with distinction (90% or more)

To obtain the final grade *pass* on the course, the student must be awarded at least *pass* on all three examination components. To obtain the grade *pass with distinction* the student must be awarded *pass with distinction* on all individual components (a and c).

Compulsory participation

Participation in the individual and group work is compulsory. The examiner assesses if, and in that case how absence from compulsory parts can be compensated. Before the student has participated in all compulsory parts or compensated absence in accordance with the examiner's instructions, the student's results for respective part will not be registered in LADOK. Absence from a compulsory part may result in the student having to wait to compensate until the next time the course is given.

Limitation of number of occasions to write the exam:

Students who have not passed the regular examination are entitled to participate in five more examinations. If the student has not passed the exam after four participations he/she is encouraged to visit the study advisor. If the student has failed six examinations/tests, no additional examination or new admission is provided.

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.

If there are special grounds, or a need for adaptation for a student with a disability, the examiner may decide to deviate from the syllabus's regulations on the examination form, the number of examination

opportunities, the possibility of supplementation or exemptions from the compulsory section/s of the course etc. Content and learning outcomes as well as the level of expected skills, knowledge and abilities may not be changed, removed or reduced.

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 Committee for Higher Education.

The course language is English.

Literature and other teaching aids

Mandatory literature

Course literature is based on key articles, power-point presentations, and handouts.

Suggested in-depth literature

Trochim, William M

The Research Methods Knowledge Base, 2nd Edition.

-, 2006

URL: [The Research Methods Knowledge Base, 2nd Edition.](#)

Groves, Robert M.

Survey methodology

Hoboken, NJ : Wiley-Interscience, cop. 2004 - xix, 424 s.

ISBN:0-471-48348-6 (pbk.) LIBRIS-ID:9361779

[Library search](#)

Dillman, Don A.; Smyth, Jolene D.; Christian, Leah Melani.

Internet, mail, and mixed-mode surveys : the tailored design method

3. ed. : Hoboken, N.J. : Wiley & Sons, cop. 2009 - 499 s.

ISBN:9780471698685 (inb.) LIBRIS-ID:11209082

[Library search](#)

Fowler, Floyd J.

Survey research methods

5. ed. : Los Angeles : SAGE, 2014 - xi, 171 pages

ISBN:978-1-4522-5900-0 LIBRIS-ID:16547851

[Library search](#)