



**Karolinska  
Institutet**

Course syllabus for

# **Applied Research Methods in Disasters, 10 credits**

Forskningsmetoder i katastrofer, 10 hp

This course syllabus is valid from autumn 2023.

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

Autumn2020 , Autumn2023

Course code	5HD001
Course name	Applied Research Methods in Disasters
Credits	10 credits
Form of Education	Higher Education, study regulation 2007
Main field of study	Public Health in Disasters
Level	AV - Second cycle
Grading scale	Excellent, Very good, Good, Satisfactory, Sufficient, Fail, Fail
Department	Department of Global Public Health
Decided by	Education Committee GPH
Decision date	2020-03-09
Revised by	Education Committee GPH
Last revision	2023-03-09
Course syllabus valid from	Autumn 2023

## **Specific entry requirements**

A Bachelor's degree or a professional qualification worth at least 180 credits in Health, Management and Administration or Social Sciences.

Applicants must have a good command in English. Applicants must prove a C1 English level (IELTS (minimum score of 6.0 with at least 5.0 point in each section); TOEFL (paper based) at least 575 points with 4.0 in the writing section; TOEFL (IBT) 79 points with at least 17 points in every section).

## **Objectives**

After completion of the course the students should within the context of research in disaster be able to:

- Describe critical elements of design, methods, data collection and analysis and specific challenges for research in disasters,
- Describe appropriate statistical methods for the analysis of different data sets,
- Interpret and present findings from statistical analyses in a clear, concise, and logical manner.

- Explain problems caused by systematic errors, bias and confounding in interpreting epidemiological data and describe the types of errors, bias, and confounding common to disaster research
- Describe and relate key characteristics of qualitative or quantitative data collection methods in disasters, and reflect on their main advantages and challenges
- Assess strengths and limitations of different sources of epidemiological data on health in disasters
- Discuss the ethical considerations around conducting research in and for disasters

## Content

During the course three main themes will be covered:

### 1. Identifying and understanding the public health problems in a disaster

- Applied epidemiology to understand the consequences of disasters
- Research to measure incidence and prevalence
- Registers for disaster epidemiology
- Identifying and dealing with high-risk groups
- Mapping the evidence using scoping and systematic reviews

### 2. Assessing the problems and setting the scope of your research

- Designing a research study: What will be measured and what data is needed?
- Causal studies and disaster risk factors: hazard, vulnerability, exposure and capacity assessments
- Ethics in disaster research

### 3. Study designs: basic concepts and practice

- Measuring the problem - basic statistics
- Randomised trials and intervention studies
- Observational studies
- Data collection in disasters
- Qualitative research
- Mixed methods approaches
- Natural experiments
- Monitoring and evaluation
- Communication of the findings of research

## Teaching methods

Learning activities include lectures, group work and practical sessions.

## Examination

The course will be examined through a written examination.

The student will receive a final grade for the whole course (A-F).

In order to pass the course, the student must obtain at least grade E.

### Compulsory participation

The examiner assesses if and how absence from compulsory parts can be compensated. Before the student has participated in compulsory parts or compensated absence in accordance with the examiner's instructions the student's results for respective part will not be registered. 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 also regarded as an examination. An examination for which the student registered but did not participate 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

The course is given in English.

Course evaluations will be carried out according to the guidelines that are established by the Committee for Higher Education.

## Literature and other teaching aids

*Phillips, Brenda D*

### **Qualitative disaster research - Oxford Handbooks**

Oxford Handbooks, 2014

URL: [Länk](#)

### **Research evidence for the humanitarian sector**

*Blanchet, Karl; Allen, Claire; Breckon, J; Davies, C; Duclos, D; Jansen, Jerome; Mythiane, H; Clarke, Mike*

Evidence Aid, 2017

URL:

[https://www.evidenceaid.org/wp-content/uploads/2018/10/Evidence\\_Aid\\_Practice\\_Guide\\_52pp\\_DIGITAL.pdf](https://www.evidenceaid.org/wp-content/uploads/2018/10/Evidence_Aid_Practice_Guide_52pp_DIGITAL.pdf)

*Aschengrau, Ann; Seage, George R.*

### **Essentials of epidemiology in public health**

Fourth edition. : 2019 - 528 pages

ISBN:9781284128352 LIBRIS-ID:5fcp77t13p5c7m84

[Library search](#)