



*Programme syllabus for*

# **Master's Programme in Public Health Sciences, 120 credits**

*Masterprogrammet i folkhälsovetenskap, 120 hp*

## **Basic programme information**

Programme code	4FH17
Name of the programme	Master's Programme in Public Health Sciences
Specialisations	The programme has one specialisation: <ul style="list-style-type: none"><li>• Public Health Epidemiology (<i>Folkhälsoepidemiologi</i>)</li></ul>
Number of credits	120.0 credits (120.0 ECTS credits)
Starting date	The syllabus applies to students who commence their studies in or after autumn 2017.
	Approved revisions of the syllabus are described under the heading Transitional Provisions.
Decision date	2016-05-10
Decided by	Board of Higher Education
Reference number	3-1169/2016
Specific eligibility requirements	A Bachelors degree or a professional degree equivalent to a Swedish Bachelors 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.
Main field of study	Public Health Sciences
Qualification	Medicine masterexamen med huvudområdet folkhälsovetenskap <i>Degree of Master of Medical Science (120 credits) with a Major in Public Health Sciences</i>

A student who fulfils the requirements for the award of qualification shall, upon request, be provided with a certificate.

# Outcomes

## Outcomes of second cycle education according to the Higher Education Act

Second-cycle courses and study programmes shall be based fundamentally on the knowledge acquired by students during first-cycle courses and study programmes, or its equivalent.

Second-cycle courses and study programmes shall involve the acquisition of specialist knowledge, competence and skills in relation to first-cycle courses and study programmes, and in addition to the requirements for first-cycle courses and study programmes shall:

- further develop the ability of students to integrate and make autonomous use of their knowledge,
- develop the students' ability to deal with complex phenomena, issues and situations, and
- develop the students' potential for professional activities that demand considerable autonomy, or for research and development work.

### *Knowledge and understanding*

For a Degree of Master (120 credits) the student shall

- demonstrate knowledge and understanding in the main field of study, including both broad knowledge of the field and a considerable degree of specialised knowledge in certain areas of the field as well as insight into current research and development work, and
- demonstrate specialised methodological knowledge in the main field of study.

### *Competence and skills*

For a Degree of Master (120 credits) the student shall

- demonstrate the ability to critically and systematically integrate knowledge and analyse, assess and deal with complex phenomena, issues and situations even with limited information
- demonstrate the ability to identify and formulate issues critically, autonomously and creatively as well as to plan and, using appropriate methods, undertake advanced tasks within predetermined time frames and so contribute to the formation of knowledge as well as the ability to evaluate this work
- demonstrate the ability in speech and writing both nationally and internationally to clearly report and discuss his or her conclusions and the knowledge and arguments on which they are based in dialogue with different audiences, and
- demonstrate the skills required for participation in research and development work or autonomous employment in some other qualified capacity.

### *Judgment and approach*

For a Degree of Master (120 credits) the student shall

- demonstrate the ability to make assessments in the main field of study informed by relevant disciplinary, social and ethical issues and also to demonstrate awareness of ethical aspects of research and development work
- demonstrate insight into the possibilities and limitations of research, its role in society and the responsibility of the individual for how it is used, and
- demonstrate the ability to identify the personal need for further knowledge and take responsibility for his or her ongoing learning.

## Outcomes of the study programme at Karolinska Institutet

In addition to the national objectives, the following outcomes apply for the Master's Programme in Public Health Sciences at Karolinska Institutet.

On completion of the programme students shall

- demonstrate advanced knowledge of methods for studying the distribution and determinants of health,
- demonstrate advanced skills in using public health science methods in the follow-up and evaluation of public health interventions,
- demonstrate advanced knowledge and skills in the application of theories and epidemiological methods within public health science and public health work, and
- demonstrate the ability to compile, analyse, critically evaluate and present epidemiological data.

## Content and structure

The programme has a focus on specialisation in health epidemiology. It provides a general introduction to Public Health Sciences as well as basic and advanced knowledge of public health epidemiology. The emphasis lies on methodology and applied epidemiology, to enhance the development of the student's skills in describing, analysing and reflecting on different types of public health problems as well as critical scrutiny of epidemiological studies. The programme, moreover, plays a preparatory role for research with courses that include both quantitative and qualitative research methodology.

The teaching in public health epidemiology is centred on the epidemiology's three core areas: monitoring the distribution health, the determinants of health as well as the evaluation of policies and interventions to counter ill health. In the respective core areas, courses range from basic to advanced methodological knowledge; a progression that is steadily built up over the different semesters. Within the specific courses the knowledge is applied to different public health problems and serve to further deepen the competences acquired. The studies are completed with a semester dedicated to research and investigative work within public health epidemiology.

To achieve a shared approach to and understanding of the main subject of Public Health Sciences, a course is given during the first semester that covers the basic concepts, principles and methods within public health work and public health science research. Subsequently, three courses are offered whose aim is to provide basic methodological knowledge in epidemiology and biostatistics. Firstly, a course in epidemiology's first core area "to study the distribution of health", then a course in biostatistics aiming to enable the student to carry out and interpret commonly applied statistical analyses within epidemiology, and finally a course that provides both theoretical and practical knowledge on data collection methods and how to manage the collected data in a structured manner.

During semester 2 the degree programme continues to build on these courses. The first two courses provide knowledge of epidemiology's other key areas: the determinants of health and statistical methods for selecting, applying and interpreting regression models to enable the carrying out of studies in public health science with epidemiological data. During this semester, qualitative methods are also introduced in order that the student shall achieve a fundamental understanding of the purpose and the areas of application for qualitative methods within public health epidemiology. The semester is completed with a course in applied epidemiology with the aim of providing specialist knowledge of epidemiological surveillance and its application within public health science in different contexts. There students are given the opportunity to apply their skills in analysing and presenting public health data.

Semester 3 commences with a course centred on how epidemiological methods are applied for the study of different public health problems with regard to the determinants. The course offers a broad perspective, ranging from the micro to the macro level and different contexts and populations and is based on relevant research projects. After this, the third core area builds on this knowledge in order to develop the students' capabilities of evaluating the complex interventions that are often carried out within public health. The course also advances the practical skills of the students in evaluations of public health work through them being able to apply their theoretical knowledge in a concrete example on a complex public health intervention. The third semester is completed with a course in scientific

methodology where the students reflect on, critically examine and apply in practice scientific methods including epistemological and ethical considerations.

The degree programme is completed with a semester where the students are enabled to specialise at a research preparatory level through a degree project of 30 credits. The course includes the planning, implementation and reporting of an empirical study in the form of a scientific report.

Scientific theory and research methods are introduced on the programme's first course. In these different courses the students acquire an increased level of knowledge and insight into scientific methods. In semester 3, both the theoretical and practical aspects are exercised. Each course includes lectures and seminars as well as practical exercises. The purpose of the seminars is to develop practical skills, a professional attitude as well as critical thinking and they also include various forms of interactive student-led activities. In the scientific report in the programme's final course the students are able to apply this knowledge in practice.

## **Transitional provisions**

--

## **Other guidelines**

### **Grading scale**

The grades used are Fail, Pass or Pass with Distinction. Alternative grading scales may apply to a few single courses, elective courses or cross-programme courses. The grading scale is detailed in the course syllabus.

### **Language of instruction**

The teaching language is English.

### **Specific eligibility requirements within the programme**

There are specific eligibility requirements for the courses within the programme. The eligibility requirements can be found in the syllabi. In cases where the requirements are connected to the admission to a later term, they are described on the programme website. There may also be specific eligibility requirements within a specific term if a course requires certain prior knowledge.

## Study plan with constituent courses

### Specialisation Public Health Epidemiology

Term	Name of the course	Credits	Main field of study	Cycle
1	Introduction to public health sciences	7,5	Public Health Sciences	Second
1	Methods for studying the distribution of health	7,5	Public Health Sciences	Second
1	Basic statistics and computer based statistic analysis	7,5	Public Health Sciences	Second
1	Collecting and organizing data	7,5	Public Health Sciences	Second
2	Epidemiological methods for studying determinants of health	7,5	Public Health Sciences	Second
2	Advanced statistics in epidemiology	10	Public Health Sciences	Second
2	Qualitative methods	7,5	Public Health Sciences	Second
2	Applied epidemiology 1 - distribution of health	5	Public Health Sciences	Second
3	Applied epidemiology 2 - determinants of health	10	Public Health Sciences	Second
3	Epidemiological methods for outcome evaluation of public health interventions	10	Public Health Sciences	Second
3	Science - theory, practice and ethics	10	Public Health Sciences	Second
4	Degree project in public health sciences	30	Public Health Sciences	Second