



## **Doctoral Programme in Epidemiology - courses spring semester 2018**

*Application can be done through the course catalogue between 2017-10-16 and 2017-11-15.*

*Courses are given on four levels (1-4), from introductory to more advanced.*

### **Biostatistics II: Logistic regression for epidemiologists** (level 2)

Dates: 2018-01-24 -- 2018-01-31, 2.0 HEC, course code 3043

This course focuses on the application of linear and logistic regression in the analysis of epidemiological studies.

Course leader: Rino Bellocco

### **Biostatistics III: Survival analysis for epidemiologists** (level 3)

Dates: 2018-02-12 -- 2018-02-21, 1.5 HEC, course code 1685

This course focuses on the application of survival analysis methods to epidemiological studies. The statistical software Stata will be used in the course.

Course leader: Mark Clements

### **Causal inference for epidemiological research** (level 3)

Dates: 2018-02-26 -- 2018-03-06, 1.5 HEC, course code 2416

This course aims to present causal theory and introduces how concepts and methods can be understood within a general methodological framework.

Course leader: Yudi Pawitan

### **Epidemiology I: Introduction to epidemiology** (level 1)

Dates: 2018-03-07 -- 2018-03-16, 1.5 HEC, course code 3041

The aim of the course is to give an introduction to epidemiological theory and practice.

Course leader: Fang Fang

### **Analysis of genome wide association data** (level 3)

Dates: 2018-03-08 -- 2018-03-14, 1.5 HEC, course code 2767

The aim is to enable students to independently perform a complete genome wide association study (GWAS) analysis in a computationally effective and statistically correct manner.

Course leader: Boel Brynedal

### **Causal inference: emulating a target trial to assess comparative effectiveness** (level 4)

Dates: 2018-03-19 -- 2018-03-21, 1.5 HEC, course code 3046

This course focuses on a general framework for the assessment of comparative effectiveness and safety research, which can be applied to both observational data and randomized trials. Pre-course reading is required.

Course leader: Miguel Hernán



## **Epidemiology II. Design of epidemiological studies** (level 2)

Dates: 2018-03-22 -- 2018-03-28, 1.5 HEC, course code 1622

The course focuses on key considerations in designing and critically interpreting different types of case-control studies, as well as matching in cohort and case-control studies.

Course leader: Karin Leander

## **Biostatistics I: Introduction for epidemiologists** (level 1)

Dates: 2018-04-04 -- 2018-04-24, 3.0 HEC, course code 3042

The aim is to introduce classical statistical concepts and methods with emphasis on methods used in epidemiology and public health.

Course leader: Matteo Bottai

## **Methods for life course epidemiology** (level 4)

Dates: 2018-04-16 -- 2018-04-20, 1.5 HEC, course code 2968

The course critically reviews life course theory and methods for analysis of longitudinal data with applications to life course epidemiology. A special focus is put on discussing and applying methods for mediation analysis.

Course leader: Ilona Koupil

## **Epidemiology III. Analysis and interpretation of epidemiological data** (level 3)

Dates: 2018-05-07 -- 2018-05-15, 1.5 HEC, course code 1684

The purpose of the course is to familiarise the student with principles for epidemiological data analysis and critical interpretation of study results.

Course leader: Lars Alfredsson

## **Introductory course in SAS programming** (level 1)

Dates: 2018-05-14 -- 2018-05-18, 1.5 HEC, course code 1447

The aim is to introduce fundamental SAS programming language for use in database handling and preparation for analyses. Further, the aim is to introduce the student on how to use statistical procedures in SAS, with focus on descriptive statistics.

Course leader: Susanne Wicks

## **Fundamentals of statistical modeling** (level 4)

Dates: 2018-05-21 -- 2018-05-25, 1.5 HEC, course code 2959

The purpose of this advanced course is to provide an introduction to the tools of statistical modeling.

Course leader: Matteo Bottai

## **Introduction to R** (level 2)

Dates: 2018-05-28 -- 2018-06-01, 1.5 HEC, course code 2958

The purpose of this course is to introduce students to using the R statistical software to perform basic to intermediate statistical data analysis in a replicable manner.

Course leader: Alexander Ploner