

# Doctoral Programme in Epidemiology - courses spring semester 2022

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

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

Dates: 2022-01-10 - 2022-01-17, 1.5 HEC, course code 5519

The course introduces statistical methods for the analysis of categorical outcome data.

Course leader: Rino Bellocco

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

Dates: 2022-02-07 - 2022-02-16, 1.5 HEC, course code 3142

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: Therese M-L Andersson

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

Dates: 2022-02-14 - 2022-02-23, 1.5 HEC, course code 3128

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

Course leader: Giorgio Tettamanti

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

Dates: 2022-03-21 - 2022-03-23, 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.

Course leader: Anthony Matthews

#### Design and analysis of twin and family-based studies (level 4)

Dates: 2022-03-28 - 2022-04-21, 1.5 HEC, course code 2893

This course focuses on potential designs and analyses using twin- and family-data. Methods to

estimate within-family associations and heritability are covered.

Course leader: Ralf Kuja-Halkola

## Introduction to R (level 2)

Dates: 2022-03-28 - 2022-04-08, 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

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

Dates: 2022-04-06 - 2022-04-26, 3.0 HEC, course code 3042

The aim is to introduce classical statistical concepts and methods with emphasis on methods for

continuous outcome data Course leader: Matteo Bottai



## An introduction to genetic and molecular epidemiology (level 2)

Dates: 2022-04-27 - 2022-05-06, 1.5 HEC, course code 3077

The course focuses on basic concepts, methods, and study design in genetic and molecular

epidemiology research. Course leader: Ida Karlsson

#### Introductory course in SAS programmingv (level 1)

Dates: 2022-05-09 - 2022-05-13, 1.5 HEC, course code 3143

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: 2022-05-16 - 2022-05-20, 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

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

Dates: 2022-05-16 - 2022-05-25, 1.5 HEC, course code 3138

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

#### **Applied longitudinal data analysis** (level 4)

Dates: 2022-05-24 - 2022-06-03, 2.5 HEC, course code 2798

The course gives an introduction to modern methods for the analysis of longitudinal and repeated measures studies which are commonly used in epidemiological studies and in clinical trials.

Course leader: Rino Bellocco

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

Dates: 2022-05-24 - 2022-06-01, 1.5 HEC, course code 3129

The purpose of the course is to familiarise the student with principles for epidemiological data

analysis and critical interpretation of study results.

Course leader: Anita Berglund