
Statistics for Clinical Researchers



March 2020

Health Academy
Radboudumc

Course information

Why take the Statistics for Clinical Researchers Course?

Knowledge of the basics of biostatistics is essential for both the analysis of medical research data and for a critical appraisal of research articles. This postgraduate course is particularly aimed at those who have previously followed an introductory course in (bio) statistics and now intend to do research. This course aims to reintroduce the principles of biostatistics from an applied biomedical perspective, give a greater understanding of statistical concepts, and help researchers understand the most commonly used biostatistical methods, including when and when not to use them. We will cover statistical methods to adequately explore, describe, display and analyze data. The emphasis will be on understanding how to interpret statistical results and how meaningful conclusions can be drawn for relevant (clinical) research questions.

Topics:

- Basic statistics
- Describing and displaying data
- Distributions
- Hypothesis testing
- Estimation using confidence intervals
- Interaction and Confounding
- Regression analysis
- Analysis of Variance (ANOVA)
- Analysis of Covariance (ANCOVA)
- Logistic regression analysis
- Design of experiments

In addition, you will be given the opportunity to analyze your own data set with the help of an experienced biostatistician.

Aim of the course

The participant will:

- Get an overview of the most applied statistical methods used in biomedical research.
- Be able to communicate more efficiently with the biostatistician.
- Be able to apply the basic statistical methods.
- Be prepared for more advanced biostatistical courses (Survival analyses, Missing values, Meta analyses, Multilevel data)

Course design

The course will be on the 2, 3, 9 and 10 March 2020. The course consists of 8 parts. Every part consists of a lecture and a computer session. After every part suggestions for reading will be given. Examples from actual research will be used.

The program will follow the book 'Discovering Statistics using SPSS' by Andy Field (fifth edition, Sage Publications 2018) or 'Discovering Statistics using R by Andy Field (first edition, Sage Publications 2012). The costs of the book is included in the total course fee. You will receive the book one week before the start of the and a syllabus on the first day of the course.

Prerequisites

Some familiarity with (bio)statistics, as usually results from the study of (Bio)Medical Sciences, Dentistry, Biology, Psychology, etc. is desirable. However, the course begins with a short refreshment of basic statistics.

Information

Teachers and preparation committee

Jordach Ramjith, *MSc, Phd student*

Dr. Rogier Donders, *Biostatistician*

Ton de Haan, *MSc, Biostatistician, Course Coordinator*

Dr. Priya Vart, *Biostatistician*

All from the Radboud University Medical Center (Radboudumc)

Location

The course will take place at the Radboud University Medical Center, Nijmegen.

Certificate/accreditation

You will be awarded a certificate upon completion of the course

Accreditation has been requested at ABAN.

Registration

- You can register and take care of your payment online at Radboud Health Academy (link volgt).
- The total course fee is € 845 (incl. book “R” or book “SPSS”).
- Registration will be limited to 30 participants.
- You will receive more information about the location, within two weeks of the start of the course.

Contact

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