Introduction to longitudinal data analysis: a biostatistics training course

Course overview

Longitudinal data is obtained when a time-sequence of measurements is made on a response variable for each of a number of subjects in an experimental or observational study. This one-day course aims to give its delegates experience of the theory behind the statistical methods used for longitudinal data analysis. They will also learn to apply these methods using SPSS software, as well as find out how to interpret their results.

Who should attend? Is it right for me?

This course is aimed at PhD students within the Faculty of Health and Life Sciences who require a basic understanding of longitudinal data analysis as part of their research studies. It is suitable for those who have no previous experience of data analysis, as well as those seeking to refresh their skills.

What will delegates learn?

By the end of this course delegates will have an understanding of:

- The main statistical issues in the analysis of longitudinal data.
- Various statistical methodologies to summarise longitudinal data.
- Methods available in SPSS to deal with longitudinal data and understanding of the assumptions behind each method.
- How to interpret and analyse their results.

What does the course cover?

- Exploratory and simple analysis strategies to summarise and analyse longitudinal data.
- Repeated measures analysis of covariance for analysing longitudinal data.
- Power and sample size for a longitudinal study design.
- Dealing with missing data in longitudinal studies.
- A practical session using standard statistical software.

To find out more

Contact Dr Ruwanthi Kolammanege-Dona in the Department of Biostatistics: kdr@liverpool.ac.uk. Alternatively, visit the department's website at:

https://www.liverpool.ac.uk/translational-medicine/departmentsandgroups/biostatistics/coursesandworkshops/