



## Introduction to longitudinal data analysis: a Health Data Science 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.

### Who should attend? Is it right for me?

This course is aimed at participants 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.
- 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 guide for applying these methods using the software package SPSS will be provided for practice in the students own time.

### To find out more

Contact Dr Maria Sudell ([mesudell@liverpool.ac.uk](mailto:mesudell@liverpool.ac.uk)) or Prof. Ruwanthi Kolamunage-Dona ([kdr@liverpool.ac.uk](mailto:kdr@liverpool.ac.uk)) in the Department of Health Data Science. Alternatively, visit the department's website at:

<https://www.liverpool.ac.uk/population-health/about/healthdatascience/coursesandworkshops/>