

## Course Summary

# Longitudinal and Correlated Data

### Monday 11 February & Tuesday 12 February

**Presenters – Prof John Carlin & Prof Andrew Forbes**

Days 1 and 2 will provide an introduction to the theory and application of the statistical methods that are commonly used for analysing longitudinal and correlated data from epidemiological or clinical studies (e.g. cluster randomised trials, longitudinal cohort studies). These methods include generalised estimating equations (GEEs) and generalised linear mixed-effects models. Participants will also learn how to implement the methods presented through a series of practical computing exercises with examples in Stata and R.

### Wednesday 13 February

**Presenter – A/Prof Lyle Gurrin**

On Day 3, participants will be provided with an introduction to Bayesian methods followed by an explanation of the application of Bayesian methods to analyse longitudinal and correlated data, building on the data examples presented on days 1 and 2 of the course. The application of Bayesian analyses to data will be demonstrated using the statistical software package WinBUGs.

### Computing

Bring your own laptop (with Stata or R installed) or use the computer lab at the venue (Stata only).

### Target audience

The course is designed for statisticians (in particular biostatisticians) with previous formal training in multivariable regression methods. Other health researchers with strong quantitative skills and substantial experience in biostatistical analysis may find the course useful but are warned that a mathematically based understanding of multiple regression will be assumed. Although experience with Stata or R is highly desirable (and will essentially be assumed during the practical sessions) a brief introduction to Stata will be available immediately before the course. During computing sessions the participants will be provided with examples of computer code, solutions and assistance from tutors.

<b>Cost (GST incl):</b>	3 days - \$1200	Student 3 days - \$1050
	Day 1 & 2 only - \$800	Student Day 1 & 2 only - \$700

### Early Bird registration (before 10<sup>th</sup> Jan 2013)

3 days - \$1100	Student 3 days - \$960
Day 1 & 2 only - \$740	Student Day 1 & 2 only - \$640

**Early Bird  
Registration  
closes  
10 January 2013**

Lunch, morning and afternoon tea provided.

**Registration:** A registration form is available on the VICBiostat website: [www.vicbiostat.org.au](http://www.vicbiostat.org.au)