This new UQ summer school will offer three 2 ½ day short courses:
1. **Longitudinal data analysis**: 9 am Wednesday 9/12/2009–12 noon Friday 11/12/2009
2. **Introduction to spatial epidemiology**: 9 am Monday 14/12/2009–12 noon Wednesday 16/12/2009
3. **Bayesian spatial modelling**: 1 pm Wednesday 16/12/2009–5 pm Friday 18/12/2009

Participants can attend one or more courses. The summer school builds on previous courses run successfully in 2007 and 2008, with updated lecture notes and computer-based exercises.

Course 1, Longitudinal data analysis will cover:
- Structuring longitudinal data and its presentation; missing data
- Repeated measures models
- Random effects models

Course 2, Introduction to spatial epidemiology, will cover:
- Spatial data manipulation, collation and presentation
- Descriptive & exploratory spatial analyses
- Variograms & geostatistics
- Cluster detection

Course 3, Bayesian spatial modelling, will cover:
- Introduction to Bayesian statistics
- Bayesian CAR models (using WinBUGS) and
- Bayesian geostatistical models

**Target audience**
Postgraduate students, researchers and government personnel with an interest in one or more of these emerging fields of epidemiology and biostatistics. Participants will have an assumed knowledge of general statistics, including multivariable modelling. No prior knowledge of longitudinal studies, spatial analysis or Bayesian statistics is needed.

**Instructors**
Dr Archie Clements PhD
Professor Gail Williams PhD

**Tutors**
Mr Ricardo Soares Magalhaes MSc
Ms Heidi Reid MPH
Dr Robert Ware PhD
Dr Peter Baker PhD

For staff profiles see [http://www.sph.uq.edu.au/staff/staffsearch/staff_list.asp](http://www.sph.uq.edu.au/staff/staffsearch/staff_list.asp)

**Computers and Software**
Desktop computers will be available at UQ during the course. Software will include Stata, SAS, ArcGIS, SaTScan, WinBUGS and R.

**Location**

**Fees**
- $1000 per course ($1750 two courses; $2250 three courses)
- Full-time students: $750 per course ($1300 two courses; $1650 three courses)

Sets of printed notes will be provided. Lunch, morning and afternoon tea are included.

**Enquiries**: e-mail: a.clements@uq.edu.au, phone: (07) 3346 4706