



ADVANCED EPIDEMIOLOGY AND BIostatISTICS SUMMER SCHOOL

BRISBANE, 9–18 DECEMBER 2009

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

Computers and Software

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

Location

The School of Population Health, Herston, Brisbane (map: <http://sph.uq.edu.au/herston.asp>). Directions and suggestions for hotels for out-of-town visitors are available on request.

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.

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