

Geospatial approaches to exposure modelling for health risk analysis workshop

Date: 29 June – 3 July 2009

Imperial College London, Department of Epidemiology and Public Health, St Mary's Campus

This course is aimed at active researchers involved in health risk analysis. The overall aim of this course is to describe and demonstrate ways in which spatial methods and geographical information systems (GIS) can be used for exposure assessment and risk analysis and thereby support public health policy. Following a brief introduction to the basic principles and functionality of GIS, the course will explore various spatial interpolation, modelling and data linkage techniques that can be used for exposure analysis and health risk assessment.

Throughout, emphasis will be placed on the potential and the limitations of GIS, in order to help potential users make sensible choices about the most appropriate analytical methods for different applications, and in different circumstances.

The course will comprise a series of hands-on practicals (predominantly within ESRI ArcGIS environment), supported by lectures and group discussion. Participants will be provided with PC access, software and data required for the duration of the course.

Topics

- Principles of GIS
- GIS for integrated environmental health risk assessment
- Data preparation (processing and handling)
- Exposure modelling
 - proximity/indicator methods
 - interpolation
 - land use regression
- Population
 - demographics and socio-economic characteristics
 - equity
 - spatial data structures/transformations
- Other topics
 - project design
 - uncertainty
 - visualisation

Lecturers: David Briggs, Linda Beale and Clive Sabel

Tutors: Kees de Hoogh, Daniela Fecht, Kayoung Lee, Gioia Mosler and Danielle Vienneau

The course will begin at 13.00h on Monday (29 June) with registration and coffee, and will finish at 15.00h on Friday (3 July). Lunch and coffee will be provided Tuesday through Friday. A group dinner will take place on Thursday evening.

Cost: €250

Plus €30 for Thursday dinner

Accommodation not included in cost

Please contact Christine Doran (email: c.doran@imperial.ac.uk tel: +44 (0)20 7594 3342)