

All authors and readers of Geospatial Health are cordially invited to consider the course:

Bayesian Disease Mapping in Epidemiology and Public Health

July 12-23, 2010, Basel, Switzerland

Host institution: Swiss Tropical and Public Health Institute, Socinstrasse 57, CH-4002 Basel, Switzerland.

Name of course: Bayesian Disease Mapping in Epidemiology and Public Health.

Teaching level: MSc.

Course duration: 2 weeks.

Course timing: Once every year; course held for the first time in 2010.

Prerequisites for attending course: Basic knowledge in statistics and geographical information systems (GIS) will be an advantage but not prerequisite.

Teaching and learning methods: The course will include formal lectures, practical computer exercises, group joint project work and discussions with participants about ways of analysing their own data.

Credits: 3 ECTS (European Credit Transfer and Accumulation System). Certificates confirming successful completion and/or attendance will be issued.

Examination: Evaluation will be based on successful completion of a data analysis project that participants will be asked to work in small groups and on a question-based test to assess individual performance.

Course contents: The course provides a comprehensive introduction to Bayesian spatial modeling in epidemiology and public health. Participants will be introduced to the basics of Bayesian modeling and computation and they will learn how to model areal and geostatistical data for identifying significant covariates and for geographical prediction and mapping of a range of health-related outcomes. Participants will be also introduced in remote sensing and GIS in order to extract environmental predictors from satellite sources, process satellite data and map raw data as well as model-based predictions. The course will involve theory and computer practical exercises in R, Openbugs and OpenGIS.



Course software used: Openbugs, R, Open source GIS.

Learning outcome: At the end of the course participants should be able to (i) identify the appropriate spatial statistical model for their data, (ii) use existing software to perform data analyses of geographical data for risk factor analysis, and (iii) use basic commands of GIS software for processing remote sensing data and mapping raw as well as model-based estimates. For learning outcomes (ii) and (iii) participants will require guidance by the trainees or statisticians with expertise in the field of Bayesian spatial modelling and GIS.

Course literature: Course material will be provided to the participants.

Course coordinator, contact person: Dr. Penelope Vounatsou (E-mail: penelope.vounatsou@unibas.ch)

Course fee: 2,000 CHF (approximately 1,350 EUR).

Contact address:

Swiss Tropical and Public Health Institute
Course Secretariat
Socinstrasse 57, P. O. Box CH-4002 Basel, Switzerland
Tel. +41 61 284 82 34; Fax +41 61 284 81 06
E-mail: courses-sti@unibas.ch
Website: <http://www.swisstph.ch>