

GIS for Public Health

Description

The physical and social environment that surrounds us plays an important part in our health and wellbeing. The geography concept of 'place' thus cannot be ignored in public health. Whether investigating the level of environmental pollution, access to recreation or services, or the patterns or spread of disease, Geographic Information Systems (GIS) provide the standard platform for exploring spatial attributes and relationships between our environment and health.

This course offers an introduction to GIS and how it is used in public health and epidemiological research. It will introduce students to the basics including: working with and integrating spatial and non-spatial data; geographic scale and spatial precision; geocoding; visualisation; thematic mapping; and understanding spatial relationships. Specific skills and tools will be introduced in relation to assessing exposure to a range of environmental risks, and a particular focus will be given to methods for spatial linkage of exposure, contextual and confounder information for epidemiological or health risk assessment studies. Students will apply their new skills to one of several case studies in topics on environmental epidemiology, risk assessment or infectious disease.

This course will be a mix of lectures, demonstrations and practical time for hands-on data analysis in ArcGIS10.

No prior knowledge of GIS is required.

Objectives

Students will gain knowledge in the fundamentals of GIS for spatial data handling and analysis. By the end of the course, students will

- Understand how GIS can be used to enhance public health and research;
- Be able to add, manipulate, visualise and map spatial data in ArcGIS10; and
- Be able to perform basic spatial analyses in ArcGIS10.

Dates

Mon 18 – Thu 21 November 2013

Eligibility

Open to PhD students of SSPH+ public health program; other students and external participants are welcome to apply for limited spaces.

PhD Program Management:

Academic Lead Prof. Charlotte Braun-Fahrländer
Program Coordination Dr. Sina Henrichs

Contact:

Address Swiss Tropical and Public Health Institute
Socinstrasse 57, CH-4002 Basel
Telephone +41 61 284 83 08
Email phdph@ssphplus.ch
Website www.ispm-unibas.ch/ssphplus

Course Structure	4-days hands on experience with ArcGIS10 interspersed with lectures. Lectures will include structured discussions on pre-course reading assignments, and the course will culminate in group presentations on practical case studies.								
Assessment	Active participation during course discussions, and the final group presentation (21 Nov).								
Credits	1.5 ECTS Preparation Work: 6 h, Contact: 36 h 1 ECTS corresponds to appr. 30 hours workload								
Facilitators	Dr. Danielle Vienneau (Department of Epidemiology and Public Health, SwissTPH, University of Basel) Dr. Kees de Hoogh (Department of Epidemiology and Biostatistics, Imperial College London)								
Location	Biozentrum Room 105, University of Basel								
Course Fees	<table border="0"> <tr> <td>SSPH+ PhD Students</td> <td>0.—</td> </tr> <tr> <td>External MD/PhD Students</td> <td>450.—</td> </tr> <tr> <td>External Academics</td> <td>1275.—</td> </tr> <tr> <td>Others</td> <td>1825.—</td> </tr> </table> <p>(The cost scheme depends on the Number of ECTS. Per ECTS participants are asked to pay 300,- CHF, 850,- CHF or 1250,-CHF, respectively)</p>	SSPH+ PhD Students	0.—	External MD/PhD Students	450.—	External Academics	1275.—	Others	1825.—
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External MD/PhD Students	450.—								
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Others	1825.—								
Registration	<u>Please register online on our homepage</u> Or send an Email to phdph@ssphplus.ch								
Deadline	18 October 2013								
Max. Attendance	20 (preference is given to SSPH+ PhD Students)								



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