

Information

Enrolment is open for

Participants coming from scientific or applied fields (e.g. public health, geography, statistics, medicine, ecology, planning and politics) who are interested in challenges of climate change and spatial epidemiology, particularly in developing countries.

Aim

The course addresses spatial-epidemiological approaches in the light of global climate change. We focus on state-of-the-art statistical and spatial statistical modelling to health outcomes and associations with socio-ecological factors in the developing world.

We combine theoretical and lab work on statistical analysis and spatial-epidemiological modelling techniques in a trans-disciplinary approach.

Teaching

The course comprises conceptual and topic specific lectures, computer classes, individual consultation and assignments. Teaching language is English.

Tuition

The tuition of enrolment for the International Summer School is 500/270 Euro. Postgraduate or doctoral students and participants from developing countries pay the lower fee. The tuition includes instruction, course materials, and the use of computer centre facilities.

Application

The number of participants is restricted to 30 persons. You are encouraged to bindingly apply as soon as possible including payment of the tuition fee.

Location

University of Bielefeld
School of Public Health
P.O. Box 10 01 31, Universitätsstr. 25
D-33501 Bielefeld, Germany

Contact

Programme Directors

Prof. Dr. Alexander Krämer

Dr. Md. Mobarak Hossain Khan

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University of Bielefeld
Germany

Prof. Dr. Tobia Lakes

Geomatics Lab
Department of Geography
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Dr. Oliver Gruebner

Dpt. of Epidemiology
Mailman School of Public Health
Columbia University New York
United States of America

Coordination

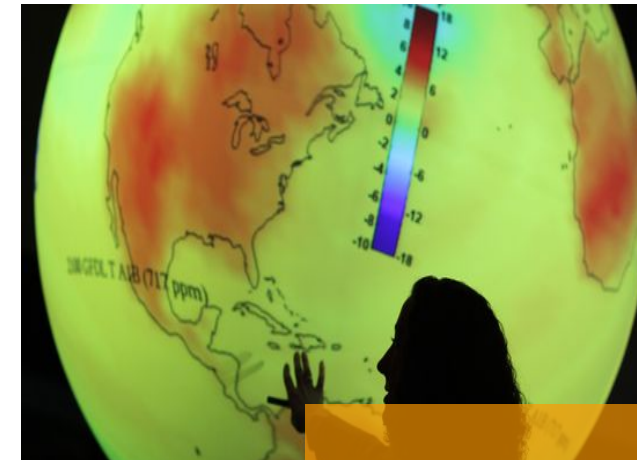
Mr. Florian Fischer

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Application form and further information:

<http://www.uni-bielefeld.de/gesundhw/ag2/summerschoolcc/>

The "International Summer School 2014" is an advanced training course of the Institute for Innovation Transfer at the University of Bielefeld GmbH (IIT) in cooperation with the Faculty of Health Sciences, University of Bielefeld.
Academic Advisor: Prof. Dr. Alexander Krämer
Supervisory Board: Prof. Dr. h.c. Helmut Steiner (Chairman)
Managing Director: Dipl.-Soz. Ludwig Pleus
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Spatial Epidemiology and Climate Change

Concepts and Modelling

6th International Summer School

September 22-26, 2014

University of Bielefeld

Objectives

The International Summer School Programme “Climate change and spatial epidemiology: Concepts, Modelling, Strategies” is combined with the well-established course on infectious disease epidemiology (IDE).

Participants will be working with the statistical software R (<http://www.r-project.org>). Basic knowledge on R is not required, but considered helpful. For preparation, we refer to Field et al. 2012: Discovering Statistics Using R. Sage. London
Furthermore, there will be a two-hour introductory course into GIS prior to the spatial statistical lectures with QuantumGIS (<http://qgis.org>).

Our participants will be enabled

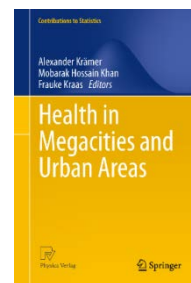
- to understand the (spatial) epidemiology of health outcomes in relation to a changing climate
- to approach concepts of population projection, epidemiological and demographical transitions
- to assess health outcomes in developing countries by applying
 - statistical techniques (i.e. multivariable regression analysis)
 - spatial statistical techniques (i.e. autocorrelation analysis, disease and exposure mapping)
 - spatial-epidemiological modelling techniques (multivariable regression models that control for spatial dependencies in the data)
- to work more effectively in collaboration with other disciplines for investigating multidisciplinary problems to develop sustainable strategies for the improvement of living conditions in developing countries.

Certificate

All participants who successfully complete the programme will be awarded a certificate issued by the Department of Geography, Humboldt-Universität zu Berlin and the Department of Public Health Medicine, the School of Public Health, University of Bielefeld, to be used for further qualification in the relevant fields. In addition 3 ECTS points are provided on demand.

Programme

- Geographic Information Systems (GIS) and geospatial analyses
- Epidemiological methods, bias and confounding
- Health statistics
- Statistical, geo-statistical and spatial-epidemiological modelling (basic regression models, generalized mixed models, accounting for spatial dependencies)
- Satellite data to assess the urban environment
- Climate change and infectious diseases
- Modelling the health impact of a changing environment



Health in Megacities and Urban Areas

Krämer, A; Khan, MH; Kraas, F (eds.)
Springer, 2011, 280 p.
ISBN 978-3-7908-2732-3

Announcement

Please note that the International Summer School

Burden of Infectious Diseases: Epidemiology, Population Health, and Mathematical Modelling
September 22-26, 2014

<http://www.uni-bielefeld.de/gesundhw/ag2/summerschoolide/>

will be offered in parallel as an alternative.

List of lecturers

Prof. Dr. Tony Gatrell

Faculty of Health and Medicine
Lancaster University, United Kingdom

Dr. Oliver Gruebner

Dpt. of Epidemiology
Mailman School of Public Health
Columbia University New York, USA

Heiko Jahn, EMPH

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Prof. Dr. Jürgen Kropp

Potsdam Institute for Climate Impact Research
Potsdam, Germany

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Geomatics Lab, Geography Department
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Prof. Dr. Sven Lautenbach

Institute of Geodesy and Geoinformation
Friedrich-Wilhelm University of Bonn, Germany

Dietrich Plaß, M.Sc. Public Health

Department of Public Health Medicine
University of Bielefeld, Germany

Dr. Luise Prüfer-Krämer

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