



# GIS for Public Health

## 5-day short course

Monday 8<sup>th</sup> – Friday 12<sup>th</sup> July 2019

### COURSE DESCRIPTION

Geographic Information Systems (GIS) have become a powerful and flexible tool used by many researchers and practitioners in the field of public health.

This specialist workshop on *GIS for Public Health* offers an introduction to GIS and how it is used in public health and epidemiological research. You will learn how to use GIS to prepare and analyse data for studies of environment and health, use GIS to assess exposures to environmental pollution, and explore and analyse patterns and the spread of disease.

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 linking geographical and health data for epidemiological studies and health risk assessment.

The course will offer a mixture of lectures, demonstrations and hands-on exercises in using different GIS software packages.

### TARGET AUDIENCE

Public health practitioners, epidemiologists, exposure scientists, quantitative health geographers, health risk assessors, students

### LOCATION

St Mary's Campus, Imperial College London, London, UK





## OBJECTIVES

Introduction to the fundamentals of GIS and how spatial data handling and analysis can enhance public health research. In particular, the course will include:

- Introduction to GIS including integrating, visualising and mapping spatial data
- Introduction to exposure assessment techniques
- Calculating and mapping disease rates and attributable risk
- Analysing accessibility to health care facilities

## OUTCOMES

You will learn how to:

- Work with and integrate spatial and non-spatial data
- Integrate data of different geographic scales and spatial precision
- Geocode and visualise spatial data
- Undertake spatial analysis of environment and health data
- Investigate spatial patterns of health risks and disease rates
- Produce thematic maps

## REQUIREMENTS

No prior knowledge of GIS is required.

## REGISTRATION

Register online on our homepage (<https://www.imperial.ac.uk/school-public-health/study/short-courses/gis-for-public-health/>) or send an email to: [d.fecht@imperial.ac.uk](mailto:d.fecht@imperial.ac.uk)

## COURSE LEADER

Dr Daniela Fecht, Lecturer in Geospatial Health, Imperial College London ([d.fecht@imperial.ac.uk](mailto:d.fecht@imperial.ac.uk))

## NUMBER OF PLACES

30 places allocated on a first come first served basis

## COURSE FEES

Internal (Imperial & PHE): £500  
External: £800

