

Spatial Analysis and Geocomputation (CEGE0097)

Description

This course teaches the fundamentals of spatial analysis and geocomputation. Students will be shown the ways in which spatial data can be digitally represented, and how these representations affect how spatial data are analysed. Students will learn a range of spatial analysis and geocomputational techniques including:

- Spatial autocorrelation analysis
- Spatial regression and interpolation
- Kernel density estimation and clustering
- Geographically weighted regression and local methods

Students will apply their skills in a range of contexts, which may include house price estimation, crime science, transportation, geodemographics and environmental sciences.

Aims & Learning Outcomes:

The aim of this module is to give students a broad understanding of the theories, methods and tools required to analyse spatially referenced data of different types. By the end of the course, students will be able to apply their skills to a range of spatial analysis problems using R Statistical Package and/or other software.

Learning Outcomes:

To understand digital representations of different types of spatial data

To gain an understanding of basic statistical analysis methods

To understand the need for spatial analysis

To gain broad knowledge of a range of spatial analysis and geocomputational techniques

To be able to apply appropriate spatial analysis and geocomputational methods to a range of spatial datasets using software packages such as R

Key information

Year	2019/20
Credit value	15 (150 study hours)
Delivery	PGT L7, Campus-based
Reading List	View on UCL website
Tutor	Dr James Haworth
Term	Term 1
Timetable	View on UCL website

Assessment

- Group project: 100%

Find out more

For more information about the department, programmes, relevant open days and to browse other modules, visit ucl.ac.uk



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