

Course Content: Spatial Data Analysis (R and QGIS)

	Subject	Type of instruction	Time duration
Day 1	Introduction	Presentation	05:00
	Concepts of data	Presentation	10:00
	Spatial data analysis	Presentation	10:00
	Resources required	Presentation	5:00
	About R Programming	Presentation & Computer	1:00:00
	About QGIS	Presentation & Practical	1:00:00
Day 2	Data Preparation for Spatial Analysis	Presentation & Practical	20:00
	Spatial Analysis Procedures	Presentation & Practical	30:00
	GIS methods – 1 (R and QGIS) <ul style="list-style-type: none"> • Data reading and writing • Graphics operation • Raster calculation • Raster analysis • Raster data conversion 	Presentation & Practical	2:40:00
Day 3	GIS methods – 2 (R and QGIS) <ul style="list-style-type: none"> • Vector geoprocessing • Vector geometry • Vector analysis • Vector data conversion 	Presentation & Practical	3:30:00
Day 4	GIS methods – 3 (R and QGIS) <ul style="list-style-type: none"> • Overlay operation • Raster to vector • Sampling • Extraction of values and coordinates 	Presentation & Computer	2:30:00
Day 5	GIS operations using Google maps, Open Street maps, QGIS and R	Presentation & Computer	2:00:00
	Conclusion	Presentation	30:00