

**Programme: M.A. Economics**

**Course Code: ECO 0130**

**Title of the Course: Techniques of Geo- spatial Analysis**

**Number of Credits: 4**

**Total Contact Hours: 48**

**Effective from AY: 2021-22**

<b>Prerequisites for the Course:</b>	The basic knowledge of Mathematics and Statistics	
<b>Objective:</b>	To introduce the students the technique of spatial data analysis and its applications in Economics	
<b>Content:</b>	Module 1: Use of spatial data in economic analysis- Introduction to QGIS - installing QGIS and its graphical user interface.	6 hours
	Module 2: Data Creation and editing formats Data formats- Interacting with data -inspecting, measuring and selecting data, Vector Data- attribute data, projections, creating shapefile, snapping, topology and data joins, Raster Data.	14 hours
	Module 3: Creating map and styling Styling raster layers- terrain, satellite images and landcover map, styling vector layers- simple maker, point line and polygon style- labeling - map creation- print layout.	14 hours
	Module 4:Spatial Analysis Analysing raster data- clipping, analysing elevation, terrain projections and raster calculator, Combining raster and vector data-converting between raster and vector and zonal statistics, Advanced raster and vector analysis with processing.	14 hours
<b>Pedagogy:</b>	Lectures/ tutorials/assignments/group activity	
<b>Reference/</b>		

