

	<b>Spatial Analysis and Quantitative Geography</b>
Description	<ul style="list-style-type: none"> <li>• Critical analysis of spatial data.</li> <li>• Modeling spatial interpolation trends and point distributions.</li> <li>• Regression models and cluster analysis.</li> <li>• Analysis of point patterns and detection of hot spots (hotspots).</li> <li>• Geographically Weighted Regression (GWR).</li> <li>• Applied statistics for space-time clustering.</li> </ul>
Learning Outcomes	<p>After the course the student will be able to</p> <ul style="list-style-type: none"> <li>• Use data science and machine learning algorithms and tools to analyze spatial data and understand the causes and effects of spatial phenomena.</li> <li>• Use programming languages such as R, or Python to retrieve, process, visualize and model geographic data</li> <li>• Apply cartographic and geographic theory concepts to map and model large geographic data</li> <li>• Conduct research using the data science and GIS methods taught in the course</li> </ul>