

ECP77533 — Spatial Economics

Module Information	
Module Code	<i>ECP77533</i>
Module Title	<i>Spatial Economics</i>
Department	<i>Economics</i>
Module Personnel	<i>Martina Kirchberger</i>
Academic Year	<i>2026–27</i>
Credit Weighting	<i>5 credits</i>
Semester	<i>Semester 1</i>
Contact Hours	<i>8 hours of lectures and 3 hours of tutorials</i>

Module Content	
Module Description	<i>The use of spatial data has become increasingly popular in economics research. Micro surveys routinely collect GPS coordinates of households and communities, satellites provide real-time measurements of night-time luminosity, and georeferenced historic maps are linked to outcomes both across long time spans and space.</i> <i>Spatial data serve in general two main purposes. First, they allow measuring outcomes that are otherwise hard to measure. Second, they aid identification of causal effects by, for example, controlling for covariates, enabling the construction of instruments, or exploiting boundaries. In the first part of the course, we will discuss how papers are using geo-referenced data, focusing on the role of spatial data in answering research questions. The second part of the course will be hands on: we will cover basic spatial tools, such as creating datasets on our own, merging spatial datasets, computing distances and the basics of map algebra.</i>
Module Learning Aims	
Learning Outcomes	<i>On completion of the module, students will be able to:</i> <i>1. Describe recent trends using spatial data in economics research</i>

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	2. <i>Understand a range of methods using spatial data</i> 3. <i>Critically evaluate whether and how spatial data can assist in answering a particular research question</i> 4. <i>Know of the possible sources of spatial data and possible applications</i> 5. <i>Conscientiously build their own spatial dataset.</i>
Indicative Reading / Resources	<i>A detailed reading list will be provided at the start of the course.</i>

Assessment

Assessment Components	<i>Exam 70% Course Project 30%</i>
Assessment Details	

Additional Information

Prerequisites	<i>None</i>
Co-requisites	<i>None</i>
Any other information	<i>None</i>