

In view of the health context linked to the spread of the coronavirus, the methods of organisation and evaluation of the learning units could be adapted in different situations; these possible new methods have been - or will be - communicated by the teachers to the students.






5 credits

30.0 h

Q2

Teacher(s)	Gomes Joseph ;
Language :	English
Place of the course	Louvain-la-Neuve
Main themes	<p>Economic Geography and Urban Economics: This part of the course will cover topics in economic geography and urban economics. Economic geography will focus on the macro determinants of regional inequalities and analyse the arbitration economies of scale and transport costs. The professor will present the founding models of Krugman (1991) and Krugman and Venables (1995). The empirical relevance of these models will also be discussed. The urban economics part will cover the micro foundations of regional inequalities and analyse the role of clusters and external economies of scale.</p> <p>GIS Methods: This part of the course will cover methods to manipulate spatial data using GIS programs. Specific topics would include: assembling, storing, displaying and analysing geographically referenced data including data from satellite images and old maps. In particular, the following topics will be covered.</p> <ol style="list-style-type: none"> 1. Finding GIS data from the web and other sources. 2. Representing spatial data on maps. 3. Key GIS components: e.g. data models (Vector vs. Raster data); Projection types; etc. 4. Use satellite images, aerial images, remote sensing data, old maps etc. for research. This includes how to measure economic variables from space using satellite data (e.g. Measuring growth using night time light measured by satellite-based images). 5. Some specific tools: Spatially join data; Inverse distance Weighting Interpolation; Zonal Statistics; Buffer analysis; Calculate distances and areas.
Aims	<p>Through this course, students will be equipped with the theoretical and empirical tools necessary to understand the uneven distribution of activities between regions of the same country. At the end of the course, students will be able to analyze the nature, causes and consequences of regional inequalities of development. The second part of the course focused on GIS methods will train students to manipulate GIS-based spatial data using software such as ArcGIS. Students will learn the essential aspects of working with GIS, including assembling, storing, displaying and analyzing geographically referenced data including data from satellite images and old maps. The methods acquired by the students can be applied to research, policy making for governments as well as in the industry.</p> <p>-----</p> <p><i>The contribution of this Teaching Unit to the development and command of the skills and learning outcomes of the programme(s) can be accessed at the end of this sheet, in the section entitled "Programmes/courses offering this Teaching Unit".</i></p>
Evaluation methods	<p>Due to the COVID-19 crisis, the information in this section is particularly likely to change.</p> <p>There will be a written exam in June which will count for 50% of the final marks and a GIS-based project that students will be required to submit after the second part of the course is completed (either individually or in small groups depending on class size). This will constitute the remaining 50% of the grade. For the project, the professor will make suggestions on topics. Students will be allowed to do the written exam a second time in August which will then count for 100% of the final marks.</p>
Teaching methods	<p>Due to the COVID-19 crisis, the information in this section is particularly likely to change.</p> <p>The first part of the course will take the form of lectures that will cover theoretical and empirical aspects of the course. The second part of the course will take the form of computer-based lab sessions, where students will be guided through GIS methods by the professor.</p>
Content	<p>The course will be divided into two parts. The first part will focus on economic geography and urban economics. This part of the course will include both theoretical and empirical topics. The second part of the course will give a hands-on training to students on using Geographical Information Systems (GIS) to manipulate spatial data. This second part of the course will be held in the form of computer lab sessions.</p>
Bibliography	<p>Bibliographie:</p> <ul style="list-style-type: none"> • First part of the course: Economic geography, P.P. Combes, T. Mayer and J. Thisse, Princeton University Press. • Second part: Lecture Notes prepared by the Professor.

Faculty or entity in charge	ECON
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Programmes containing this learning unit (UE)				
Program title	Acronym	Credits	Prerequisite	Aims
Master [120] in Geography : General	GEOG2M	5		
Master [60] in Economics : General	ECON2M1	5		
Master [120] in Agricultural Bioengineering	BIRA2M	5		
Master [120] in Agriculture and Bio-industries	SAIV2M	5		
Master [120] in Economics: General	ECON2M	5		
Master [120] in Geography : Climatology	CLIM2M	5		