UCLouvain

Igeo1342

2023

Geographical Information Systems (GIS)

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Teacher(s)	Vanwambeke Sophie ;				
Language :	French				
Place of the course	Louvain-la-Neuve				
Learning outcomes	At the end of this learning unit, the student is able to: -To develop an understanding of the basic principles and of the functionalities of a Geographical Information System, including spatial data acquisition, storage, and manipulation, spatial analysis techniques, and the creation and presentation of a GISTo master the use of a GIS software (e.g. ArcView GIS and its extension Spatial Analyst) -To develop the competence to present and analyse spatial data within the frame of a GIS.				
Evaluation methods	Theory: written exam during the session (30%), course activities (continued evaluation and a presentation on geotechnology) (20%); practicals (50%): written practical exam in the session. Same modalities in the second session. The marks of course activities are attached to each exam session in the academic year. Succeeding in bothe the practical and theoretic evaluation is indispensable to demostrate the competence and knowledge expected at the issue of the course. Failing either theory or practice will automatically lead to failing the whole unit.				
Teaching methods	Lectures integrating elements of flipped classroom and presentations by professionals. Practical sessions.				
Content	The course offers to acquire theoretical and conceptual principles that underpin the use of geographic information systems (GIS), and to learn the use of a GIS software. • Develop an understanding of the basic principles and functionalities of a geographic information system, including acquisition, storage, and processing of spatial data, spatial analysis methods. • Master the use of a GIS software (eg ArcView GIS and the "spatial analyst extension"). • Develop the capacity to present and analyse spatial data in a GIS.				
Inline resources	All useful ressources are on Moodle.				
Faculty or entity in charge	GEOG				

Programmes containing this learning unit (UE)						
Program title	Acronym	Credits	Prerequisite	Learning outcomes		
Minor in Scientific Culture	MINCULTS	5		٩		
Advanced Master in Quantitative Methods in the Social Sciences	LMQS2MC	5		٩		
Master [120] in Population and Development Studies	SPED2M	5		٩		
Master [120] in Public Health	ESP2M	5		Q		
Minor in Geography	MINGEOG	5		٩		
Bachelor in Geography : General	GEOG1BA	5		٩		