UCL Université catholique de Louvain

LGEO2140

2015-2016

Advanced physical geography

5.0 credits	30.0 h + 30.0 h	1q

Teacher(s) :	Van Oost Kristof (coordinator) ; Vanacker Veerle ;
Language :	Anglais
Place of the course	Louvain-la-Neuve
Main themes :	Several major scientific debates in the field of physical geography will be presented, such as: - The role of steep, mountainous watersheds in the sediment flux from the continents to the ocean - Human impacts on biogeochemical cycles - The effect of soil erosion on primary productivity - Deforestation and soil erosion: an ecological disaster in the tropics? - Deforestation and historical erosion: lessons for the future? The students will form different groups that will address one of these predefined topics. The course is organized around three modules: i) Lectures, presentation of the basic concepts and scientific background of the major scientific debates. ii) Seminars, each group will communicate a geographical analyses of his topic based on the reading of scientific papers. iii) Group work, each group will use different techniques for the spatial analyses of the interaction between deforestation, soil erosion, global sediment fluxes and impacts on biogeochemical cycles. Each group will present a report of ca. 4000 words.
Aims :	The main objective of this course is to develop a basic knowledge of recent developments in environmental sciences that are relevant to physical geography research. Furthermore, this course will also serve as a platform to work with a range of methods and techniques for spatial analysis which are frequently used in Earth Sciences. Practical/Knowledge skills: - An awareness of the diversity of approaches and contemporary debates in the field of physical geography - An ability to identify research questions and develop a coherent scientific strategy to analyse research problems in the field of physical geography - An ability to develop a scientific reasoning based on the theoretical background presented in the course - An ability to communicate a geographical analysis using the appropriate scientific language Personal skills: - to stimulate an aptitude for scientific debate in relation to the main scientific challenges and technologies used in Earth Sciences - An ability to analyse scientific publications rigorously and critically - An awareness of the contemporary research questions in physical geography and their general, local and regional context *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".*
Other infos :	Requirements: GEO1342 - Geographical Information Systems GEO1331 - Géomorphologie
Faculty or entity in charge:	GEOG

Programmes / formations proposant cette unité d'enseignement (UE)				
Intitulé du programme	Sigle	Credits	Prerequis	Acquis d'apprentissage
Master [120] in Geography : General	GEOG2M	5	-	
Master [120] in Geography : Climatology	CLIM2M	5	-	
Master [120] in Biology of Organisms and Ecology	BOE2M	5	-	