



5.00 credits

30.0 h + 30.0 h

Q2

Teacher(s)	Guns Marie ;
Language :	French
Place of the course	Louvain-la-Neuve
Prerequisites	<i>The prerequisite(s) for this Teaching Unit (Unité d'enseignement – UE) for the programmes/courses that offer this Teaching Unit are specified at the end of this sheet.</i>
Main themes	Prerequisites: The course uses the following material: The main lines of atmospheric circulation The endogeneous processes The different types of rocks Elementary notion of exogeneous processes: alteration, hydrological cycle, terrain slides, erosion, soils and ecosystems. Lectures: (8 X 2hrs) 1: introduction (preparation time: 2hrs) 2: Slope processes and its materials (preparation time: 3hrs) 3: Weathering (preparation time: 3hrs) 4: The relation between morphology, soils and surfaces (preparation time: 3hrs) 5: Water erosion (preparation time: 3hrs) 6: Land slides (preparation time: 3 hrs) 7: Slope development as a result of denudation (preparation time: 3hrs) 8: Questions and answers (preparation time: 2hrs) Practical work: The sessions are organised in 8 sessions of 3 hours; a day of field work in one group of students under the supervision of an assistant. PW1/2: Geomorphological analysis from topographic maps PW3: Use of digital terrain models (DTM) in geomorphology PW4: Field preparation PW5: Field work PW6: Analysis of field data PW7&8: Geomorphological analysis from aerial photos Personal work Literature review (16 hrs) Field analysis report (20 hrs) With supervision, the possibility of consultations (during the weeks before the deadline dates). Notions acquired: Bibliographic research Capacity to analyse the results of sampling and to describe them clearly in a report.
Learning outcomes	<p>At the end of this learning unit, the student is able to :</p> <p>Knowledge: To understand the interaction between morphology, the materials and the exogeneous processes on slopes. Skills: To acquire experience in field work, sampling, sample analysis (A level). To acquire experience in interpretation of material expression and the processes in the scenery morphology from maps and aerial pictures (B level). To be capable of analyzing and interpreting the results of a field campaign.</p> <p>1</p>
Evaluation methods	The course is evaluated based on 50 % written exam and 50 % course work
Teaching methods	The course consists of 10 lectures, 1 field trip and 6 exercises
Content	Catchment hydrology Rheology Water erosion Weathering Geography of soils Mass wasting Slope stability Morphology, soils and surfaces Slope development
Bibliography	Ahnert, F., 1998. Introduction to Geomorphology. Arnold, London. Holden, J. 2005 An Introduction to Physical Geography and the Environment, 2nd Edition. Pearson (disponible à la BSE) Morgan, R.P.C., 1995. Soil Erosion and Conservation. Longman, Harlow. Selby, M.J., 1993. Hillslope Materials and Processes. Oxford University Press, Oxford. Thomas, M.F., 1994. Geomorphology in the Tropics. Wiley, Cichester.
Other infos	The slides are available on moodle and the the reference texts are in the library
Faculty or entity in charge	GEOG

Programmes containing this learning unit (UE)				
Program title	Acronym	Credits	Prerequisite	Learning outcomes
Minor in Geography	MINGEOG	5		
Bachelor in Geography : General	GEOG1BA	5	LGEO1251 AND LGEO1231	
Master [120] in Geography : Climatology [Réforme 2024 - 2025]	CLIM2M	5		