



5 credits

30.0 h + 30.0 h

Q1

Teacher(s)	Vanacker Veerle ;
Language :	English
Place of the course	Louvain-la-Neuve
Main themes	<p>The analysis of landscape morphology results from the study of internal and external processes that govern the formation and the evolution of relief. In the course, concepts of the dynamics and evolution of the relief are discussed through the analysis of tectonic, climatic and anthropic processes that have an influence on material transfer at the Earth surface. This course presents recent advances in the field of earth surface processes and evolution, and reviews the fundamentals of the subject including geomorphic markers, geochronology, and landform evolution at the short and intermediate time scale. As an advanced course, it is intended for students who are familiar with basic geomorphologic concepts. On completion of this module, students should be able to: (i) understand the fundamentals of commonly used dating methods, (ii) interpret dates and rates of geomorphologic processes in terms of long-term landscape evolution, and (iii) read independently scientific literature on earth surface processes and evolution.</p>
Aims	<p>The main objective of this course is to acquire the key concepts in geomorphology as to understand dynamic landscape evolution. Geomorphic markers and several dating techniques will be discussed in detail, so that students get a thorough knowledge of quantitative geomorphology.</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>Evaluation 50 % of the grade will be based on continuous evaluation: - Presentation of literature review ' 10% - Presentation and report of research project ' 25% - Report of excursion ' 15% A written exam on the theoretical lectures will count for 50% of the grade A major failure (< 8/20) on one of the elements of the evaluation automatically involves failure for the entire course in the first session.</p>
Content	<p>This course includes three parts : (i) the presentation of geomorphologic concepts that govern the formation and evolution of the relief and the basics of dating techniques and morphologic markers (ii) the autonomous application of these geomorphologic concepts through the analysis of topographic and morphometric indices calculated from digital elevation models in a GIS software (iii) the analysis of the morphology of a landscape in the field through the application of concepts presented during lectures</p>
Bibliography	Burbank, D.W.; R.S. Anderson, 2000. Tectonic Geomorphology. Blackwell. Articles scientifiques fournis sur ICampus
Other infos	Prerequisite: Basic knowledge of earth system science, and slope processes Textbook:
Faculty or entity in charge	GEOG

Programmes containing this learning unit (UE)				
Program title	Acronym	Credits	Prerequisite	Aims
Master [60] in Geography : General	GEOG2M1	5		
Master [120] in Geography : Climatology	CLIM2M	5		
Master [120] in Geography : General	GEOG2M	5		