

COURSE DETAIL

BIOGEOMORPHOLOGY

Country

Netherlands

Host Institution

Utrecht University

Program(s)

Utrecht University

UCEAP Course Level

Upper Division

UCEAP Subject Area(s)

Geography Engineering Biological Sciences

UCEAP Course Number

141

UCEAP Course Suffix**UCEAP Official Title**

BIOGEOMORPHOLOGY

UCEAP Transcript Title

BIOGEOMORPHOLOGY

UCEAP Quarter Units

6.00

UCEAP Semester Units

4.00

Course Description

Nearly all continental surface of the planet shows interactions between geomorphic processes and biota, called biogeomorphic interactions. These interactions are often so strong that patterns and landforms emerge that otherwise would not form (such as on planet Mars). This course covers key concepts from ecology and biogeomorphology that allow analysis of all environments from the mountains to the sea. This is not only useful for geomorphology and ecology, but also for application in societal settings where 'nature' can be restored to increase protection against floods, and debris flows. This course provides an overview on biogeomorphic interactions and analyze three typical environments from the mountains to the sea in depth, for example vegetated high mountain slopes, rivers and dunes or tidal flats. All systems are studied to determine the roles of physical boundary conditions and geomorphic processes, different plant species and their interactions with the landscapes, and applications with societal relevance in all these environments. The reading and lecture materials will be applied in practicals, small projects, and excursions. Key concepts to be explored include ecological concepts related to species and their functioning in a landscape (functional traits, trade-offs) and their potential to improve their own environment (ecosystem engineering), and the development of the entire living landscape (succession, geomorphic and ecologic pattern formation).

Language(s) of Instruction

English

Host Institution Course Number

Geo3-1342

Host Institution Course Title

BIOGEOMORPHOLOGY

Host Institution Course Details

<https://osiris-student.uu.nl/onderwijs/catalogus/extern/cursus>

Host Institution Campus

Utrecht University

Host Institution Faculty

Faculty of Geosciences

Host Institution Degree

Host Institution Department

Course Last Reviewed

2025-2026

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