

- has basic knowledge of meteorological processes.
- can perform spatial analyses using GIS software on digital maps representing vector and raster data structures

Final competences

- 1 Correctly use the specific terminology related to soil degradation and desertification
- 2 Have insights in the processes, potential causes, and impacts of the main threats by soil degradation
- 3 Identify relevant indicators and their related analytical procedures to assess soil degradation status
- 4 Correctly interpret analytical data with respect to soil degradation or soil conservation
- 5 Integrate knowledge on soil degradation and land information systems to delineate soil degradation risk zones
- 6 Identify relevant and sustainable soil protection and conservation measures
- 7 Be aware of the economics of soil degradation
- 8 Display integrative thinking on soil degradation and land management

Conditions for credit contract

Access to this course unit via a credit contract is determined after successful competences assessment

Conditions for exam contract

This course unit cannot be taken via an exam contract

Teaching methods

Group work, lecture, seminar, independent work

Extra information on the teaching methods

Seminar: coached (PC-)exercises

Independent work: homework, can consist of introductory instructions to practical sessions and/or finalisation of individual reports

Group work: homework, can consist of introductory instructions to practical sessions and/or finalisation of group reports

Learning materials and price

An English syllabus will be made available during the first lectures, downloadable from Ufora. There are no obligatory handbooks. During the course of the lectures, an electronic version of the slides will be deposited at the Ufora site. Cost: 0 euro

References

- FAO 2015. Status of the World's Soil Resources, FAO.
- GLASOD (Global Assessment of Soil Degradation) publications (ISRIC, Wageningen): <http://www.isric.org/projects/global-assessment-human-induced-soil-degradation-glasod>
- (G)LADA (Land Degradation Assessment in Drylands) publications, FAO & ISRIC: <http://www.isric.org/projects/land-degradation-assessment-drylands-glada>
- Liniger, H.P., R. Mekdaschi Studer, C. Hauert and M. Gurtner. 2011. Sustainable Land Management in Practice – Guidelines and Best Practices for Sub-Saharan Africa. TerrAfrica, World Overview of Conservation Approaches and Technologies (WOCAT) and Food and Agriculture Organization of the United Nations (FAO)
- Liniger, H.P. and W. Critchly. 2011. WOCAT 2007: where the land is greener. Case studies and analysis of soil and water conservation initiatives worldwide. CTA, FAO, UNEP, CDE.
- Louwagie, G., Gay, S.H., Burrell, A. 2009. Addressing land degradation in EU agriculture: relevant processes, practices and policies. Report on the project "Sustainable agriculture and Soil Conservation (SoCo). EUR 23767 EN. JRC, IPTS, IES.

Course content-related study coaching

Personal coaching before and after the lectures. Consultancy and feedback about the corrected applications by assistant during the guided exercises.

Assessment moments

end-of-term and continuous assessment

Examination methods in case of periodic assessment during the first examination period

Written assessment with open-ended questions

Examination methods in case of periodic assessment during the second examination period

Oral assessment, written assessment with open-ended questions

Examination methods in case of permanent assessment

Participation, assignment, skills test

Possibilities of retake in case of permanent assessment

examination during the second examination period is not possible

Extra information on the examination methods

The end-of-term assessment will assess the knowledge and insight of the student in different land/soil degradation processes, assessment and control using open questions.

With respect to the continuous assessment, the students will be evaluated based on their participation throughout the semester and the individual and group assignments following the various practicals. The following aspects will be evaluated:

- the acquired **skills**, evaluating to what extent calculations, software were correctly done/used, and
- the ability to critically and thoroughly analyse specific cases, come to integrated conclusions (**assignment/participation**)

Deadlines for submission of the reports need to be strictly respected. Each student is held responsible for the timely submission of the reports. Each student is expected to contribute to the practicals and to the group report.

In case of non-passing in the first exam session, the scores obtained on the continuous assessment are transferred to the second session exam.

Calculation of the examination mark

- Period-aligned evaluation: 65%
- Non-period aligned evaluation: 35%

If there is an obvious difference in input and commitment between the different group members, the marks for the group report might differ among the students belonging to the same group.

Unfoundedly eschewing a practical for this course unit leads to a score of 0 for that report. In case of foundedly eschewing the practical sessions, a solution is searched; this can imply that (an) alternative task(s) is provided.