

Soil Management in Tropical and Subtropical Developing Regions (I002482)

Course size *(nominal values; actual values may depend on programme)*

Credits 3.0 **Study time** 90 h **Contact hrs** 30.0h

Course offerings in academic year 2022-2023

A (semester 2) English Gent

Lecturers in academic year 2022-2023

Diaz-Pines, Eugenio WIEN03 lecturer-in-charge

Offered in the following programmes in 2022-2023

	crdts	offering
International Master of Science in Soils and Global Change (main subject Soil Biogeochemistry and Global Change)	3	A

Teaching languages

English

Keywords

Position of the course

Contents

The course will provide an insight into soil management in the tropics and subtropics. The interlinkages between soil and land management with crop productivity and food security will be presented, along with the environmental effects of agricultural practices and soil degradation. Special attention will be given to adaptation and mitigation to climate change of agricultural activities in the frame of sustainable soil use and the sustainable development goals (SDG)

Due to the current situation with regard to the COVID-19, the course will be held online completely. It will consist of a combination of frontal lectures with some interactive discussions & group dynamics. Case studies will be used as basis for explaining aspects of soil management. Some of the ecosystems and production systems as well as topics which will be targeted include:

- Tropical forests and forest degradation
- Low input farming systems
- Rice paddy fields
- Livestock and grazed bushlands/grasslands
- Sustainable intensification

Initial competences

no previous knowledge expected

Final competences

- 1 After completion of the course, the attendees are expected to be able, with regard to the tropics and subtropics in developing regions, to:
Describe the main general, environmental and social features.
- 2 Outline the feedbacks between climate and ecosystems (managed or natural)
- 3 Identify and describe major limitations for food production
- 4 Explain the role of the soil for the sustainable use of resources
- 5 Evaluate case studies for selected production systems (...smallholders, rice, extensive livestock)
- 6 Critically assess options for increasing sustainability of agricultural production systems (e.g. sustainable intensification, conservation agriculture, agroforestry)

Conditions for credit contract

This course unit cannot be taken via a credit contract

Conditions for exam contract

This course unit cannot be taken via an exam contract

Teaching methods

Lecture

Extra information on the teaching methods

The course will consist of a combination of frontal lectures with some interactive discussions & group dynamics

Learning materials and price

multimedia-supported

References

Course content-related study coaching

Assessment moments

end-of-term assessment

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

Oral examination

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

Oral examination

Examination methods in case of permanent assessment

Possibilities of retake in case of permanent assessment

examination during the second examination period is possible

Calculation of the examination mark