

## 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**

	<b>crdts</b>	<b>offering</b>
<a href="#">International Master of Science in Soils and Global Change (main subject Soil Biogeochemistry and Global Change)</a>	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**