

# Course Specifications

Valid in the academic year 2022-2023

# Mineral Nutrition of Crops under Different Climate and Environmental Conditions (1002495)

Course size	(nominal values; actual values may depend on programme)				
Credits 6.0	Study time 180 h	Contact	hrs	60.0h	
Course offerings in academic year 2022-2023					
A (semester 1)	English	Gent			
Lecturers in academic ye	ear 2022-2023				
Dittert, Klaus			GOTTINO1	lecturer-in-ch	arge
Rummel, Pauline S	ophie		GOTTIN01	co-lecturer	
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)				6	А

#### **Teaching languages**

English

#### Keywords

# Position of the course

# Contents

#### Initial competences

Basics in plant physiology, chemistry and soil science

#### **Final competences**

- 1 Students acquire knowledge of characteristic properties and specialities of nutrient cycles of ecosystems of different climate zones and upon different environmental drivers
- 2 Participants develop understanding of important processes and interactions between abiotic condition of locations, processes in soils and in particular on their effects on plant nutrient uptake. They know plant adaptation mechanisms.
- 3 Students also get knowledge of the use of stable isotopes for the study of the above processes.

#### 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

Learning materials and price

References

Course content-related study coaching

#### Assessment moments

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

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

Written examination

### Examination methods in case of permanent assessment

#### Possibilities of retake in case of permanent assessment

examination during the second examination period is possible

## Extra information on the examination methods

Examination requirements: Knowledge of key characters of nutrient cycles in different climate zones with respect to major problems of soil fertility, plant nutrient supply and other environmental impacts, including anthropogenic management. Second important focus on adaptation mechanisms in plants to cope with nutritional constraints. Basic knowledge in stable isotope tracer methods and natural stable isotope abundance methods for the study of above research subjects.

#### Calculation of the examination mark