

Mineral Nutrition of Crops under Different Climate and Environmental Conditions (I002495)

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

Credits 6.0

Study time 180 h

Course offerings in academic year 2023-2024

Lecturers in academic year 2023-2024

Dittert, Klaus

GOTTIN01 lecturer-in-charge

Rummel, Pauline Sophie

GOTTIN01 co-lecturer

Offered in the following programmes in 2023-2024

[International Master of Science in Soils and Global Change \(main subject Soil Biogeochemistry and Global Change\)](#)

crdts

6

offering

A

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

Written assessment

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

Written assessment

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