

## Soil Chemistry (I002773)

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

**Credits 5.0**

**Study time 150 h**

**Course offerings and teaching methods in academic year 2023-2024**

A (semester 1)

English

Gent

lecture

practical

**Lecturers in academic year 2023-2024**

Tack, Filip

LA24

lecturer-in-charge

**Offered in the following programmes in 2023-2024**

**crdts**

**offering**

[International Master of Science in Soils and Global Change \(main subject Physical Land Resources and Global Change\)](#)

5

A

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

5

A

[Exchange Programme in Bioscience Engineering: Agricultural Sciences \(master's level\)](#)

5

A

[Exchange Programme in Bioscience Engineering: Land and Forest management \(master's level\)](#)

5

A

**Teaching languages**

English

**Keywords**

soil, chemistry, pedology, dynamics of elements

**Position of the course**

This course is a basic course for soil science students aiming to provide students with the chemical aspects of soil that are of importance in understanding its functioning, management and use. Along the trajectory, relevant chemical methods of soil analysis are studied.

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### Initial competences

Elementary knowledge of inorganic chemistry

### Final competences

- 1 Explain soil components and chemical reactions in soils
- 2 Explain the principle of analytical methods for soil characterization
- 3 Select suited analytical methods for characterizing soil properties
- 4 Interpret analytical results of soil analysis
- 5 Evaluate the accuracy and the reliability of analytical data

### 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

Lecture, Practical

**Extra information on the teaching methods**

Practicum: lab exercises: Analysis of soil

Lecture: plenary exercises: during the theory class, example exercises are interactively solved.

**Learning materials and price**

Lecture notes are available during the first lecture.

Slides are electronically available.

**References**

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**Course content-related study coaching**

Illustration of theory via problems and hands-on laboratory 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**

Written assessment with open-ended questions

**Examination methods in case of permanent assessment**

Assignment

**Possibilities of retake in case of permanent assessment**

examination during the second examination period is not possible

**Extra information on the examination methods**

Continuous assessment: evaluation based on reports of practical laboratory exercises

End-of-term assessment: written examination with open-ended questions (60%) and numerical problems (40%)

**Calculation of the examination mark**

Continuous assessment: 5/20

End-of-term assessment: 15/20

Students who eschew continuous assessment may be failed by the examiner. In this case, a score of at most 9/20 will be assigned.