GHENT UNIVERSITY

Course Specifications

Valid in the academic year 2024-2025

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 2024-2025

A (semester 1)	English	Gent	lecture
			practical

Lecturers in academic year 2024-2025

Tack, Filip	LA24	lecturer-in-charge

Offered in the following programmes in 2024-2025	**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
International Master of Science in Soils and Global Change (main subject Soil Ecosystem Services and Global Change)	5	A
International Master of Science in Soils and Global Change (main subject Soil-Plant System Processes 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.

Contents

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.

Study material

Type: Syllabus

Name: Soil Chemistry
Indicative price: € 25
Optional: no
Language : English

Type: Slides

Name: Slides
Indicative price: Free or paid by faculty
Optional: no

Type: Lab Material

Name: Alcohol Felt Tip Pen
Indicative price: € 10
Optional: no

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: 8/20
End-of-term assessment: 12/20
Students who do not pass both the continuous assessment and the end-of-term assessment, or who eschew one or more evaluation moments without legal justification, may be failed by the examiner. In these cases, a score of at most 9/20 will be assigned.