

Soil Microbiology Course (1002487)

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

Credits 4.0	Study time 120 h	Contact hrs	40.0h
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Course offerings in academic year 2022-2023

A (semester 2)	English	Gent
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Lecturers in academic year 2022-2023

Keiblinger, Katharina	WIEN03	lecturer-in-charge
Diaz-Pines, Eugenio	WIEN03	co-lecturer
Zechmeister-Boltenstern, Sophie	WIEN03	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)	4	A

Teaching languages

English

Keywords

Position of the course

Contents

We will work one day in the field on an experimental site in the Roalia mountains at the forest demonstration centre. We will collect gas samples from manual cuvettes and measure them on a gas chromatograph in the lab, in order to assess the microbial production of greenhouse gases (carbon dioxide, nitrous oxide and methane). Soil microbiological methods include microbial biomass Carbon (Cmic) and Nitrogen (Nmic), inorganic forms of nitrogen (ammonium and nitrate), reducing sugars, soil respiration via titration. The data are statistically evaluated, interpreted and presented as posters.

Initial competences

no previous knowledge expected

Final competences

- 1 By the end of the course, students are expected to be able to:
Explain a set of main methods used in the field of soil microbiology;
- 2 Apply classical methods in soil microbiology in the lab;
- 3 Interpret soil microbiological data, including interrelations between different variables.

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: plenary exercises

Extra information on the teaching methods

Results will be presented as posters, a best poster award will be donated.

Learning materials and price

References

Course content-related study coaching

Assessment moments

end-of-term and continuous assessment

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

Written examination

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

Written examination

Examination methods in case of permanent assessment

Participation, Assignment

Possibilities of retake in case of permanent assessment

examination during the second examination period is possible

Calculation of the examination mark