

Soil microbiology course (I002487)

Due to Covid 19, the education and evaluation methods may vary from the information displayed in the schedules and course details. Any changes will be communicated on Ufora.

Course size (nominal values; actual values may depend on programme)
Credits 4.0 Study time 120 h Contact hrs 40.0 h

Course offerings in academic year 2020-2021

A (semester 2) English Gent

Lecturers in academic year 2020-2021

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

Offered in the following programmes in 2020-2021

	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

Students should gain a methodical insight into the field of soil microbiology. In this course students are forced to work independently in small groups in the laboratory and they learn how to apply classical methods in soil microbiology. After successful completion, students are able to deal with soil microbiological data and to grasp microbial interrelations.

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

Evaluation methods

end-of-term evaluation and continuous assessment

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

Written examination

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

Written examination

Examination methods in case of permanent evaluation

Participation, assignment

Possibilities of retake in case of permanent evaluation

examination during the second examination period is possible

Calculation of the examination mark