

Forest Soil Biology (I002486)

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 3.0 Study time 90 h Contact hrs 30.0 h

Course offerings in academic year 2020-2021

A (semester 2) English Gent

Lecturers in academic year 2020-2021

Schindlbacher, Andreas 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)	3	A

Teaching languages

English

Keywords

Position of the course

Contents

Lectures on microbial decomposition in forests, factors of influence, soil organisms, effects of climate change.

Excursions and method demonstrations:

- Field site with automated greenhouse gas flux measurements and C, N and water balance.
- Federal Research and Training Centre for Forests.

Online research and presentations on selected topics.

Initial competences

no previous knowledge expected

Final competences

Understanding of the forest soil as a habitat for microorganisms, soil animals and plant roots. View of the reciprocal effects and activities of these organisms, their function and their dependence on the environment.

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, self-reliant study activities, lecture: plenary exercises

Extra information on the teaching methods

Lecture with exercises; The participants in these lectures and exercises are constantly evaluated. Criteria for evaluation are regular attendance (minimum 75%), quality of contributions, input to discussions and presentation of results

Learning materials and price

Atlas of Soil Biodiversity (free download at: <https://esdac.jrc.ec.europa.eu/content/atlas-soil-biodiversity>)

References

- Haider K. (1996) Biochemie des Bodens. Ferdinand Enke Verlag, Stuttgart, 174 pp.
Killham K. (1994) Soil Ecology, Cambridge University Press, Cambridge, 141 pp.
Paul, EA, Clark, FE (1996) Soil Microbiology and Biochemistry. Academic Press, New York, 340 pp.
Schlegel, HG (1992) Allgemeine Mikrobiologie. 7. Aufl. Thieme verlag, Stuttgart, 634 pp.
Sylvia D.M., Fuhrmann J.J., Hartel P.G., Zuberer D.A. (1999) Principles and Applications of Soil Microbiology. Prentice Hall, Upper Saddle River, New Jersey, 550 pp.

Course content-related study coaching

Evaluation methods

continuous assessment

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

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

Examination methods in case of permanent evaluation

Oral examination, participation

Possibilities of retake in case of permanent evaluation

examination during the second examination period is possible

Extra information on the examination methods

The participants in these lectures and exercises are constantly evaluated. Criteria for evaluation are regular attendance, quality of contributions, input to discussions and presentation of results.

Calculation of the examination mark