

Course Specifications

From the academic year 2020-2021 up to and including the academic year

Forest Soil Biology (1002486)

Course size	(nominal values; actual values may depend on programme)						
Credits 3.0	Study time 90	h Conta	Contact hrs		30.0h		
Course offerings in ac	ademic year 2022-2023						
A (semester 2)	English	Gent					
Lecturers in academic	: year 2022-2023						
Schindlbacher, Andreas			WIEN03	lecturer-in-charge			
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)				3	А		

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 measurments 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: plenary exercises, Lecture, Self-reliant study activities

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

Assessment moments

continuous assessment

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

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

Examination methods in case of permanent assessment

Participation, Oral examination

Possibilities of retake in case of permanent assessment

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