

## Forest Soil Biology (1002486)

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 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

|  | <b>crdts</b> | <b>offering</b> |
|--|--------------|-----------------|
| <a href="#">International Master of Science in Soils and Global Change (main subject Soil Biogeochemistry and Global Change)</a> | 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**