

## Microbiology for Resource Scientists: Lab Course (I002847)

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

**Credits** 4.0                      **Study time** 120 h

**Course offerings in academic year 2024-2025**

A (Year)                      English                      Gent

**Lecturers in academic year 2024-2025**

Schlöhmann, Michael                      FREIBE01    lecturer-in-charge  
Kaschabek, Stefan                      FREIBE01    co-lecturer

**Offered in the following programmes in 2024-2025**

	crdts	offering
<a href="#">International Master of Science in Sustainable and Innovative Natural Resource Management</a>	4	A

**Teaching languages**

English

**Keywords**

**Position of the course**

**Contents**

Working sterile; preparation of minimal and complex media; pouring of plates; enrichment, isolation and identification of microorganisms. Experiments on various metabolic properties of microorganisms (e.g. leaching of sulfides). Turbidity measurement, HPLC analyses, colorimetric determination of ions in solution.

**Initial competences**

Mandatory: Microbiology for Resource Scientists: Lecture, 2018-07-03 oder (or)" Grundlagen der Biochemie und Mikrobiologie" oder (or) equivalent  
Recommendations: Knowledge in general, inorganic and organic chemistry.

**Final competences**

- 1 The students will have obtained experience in basic microbiological methods.
- 2 They are able to prepare sterile media, to cultivate microorganisms and to enrich as well as isolate pure cultures.
- 3 They are able to follow the growth of cultures and to analyse substrate conversion and product formation during cultivation.

**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, Practical

**Extra information on the teaching methods**

S1 (WS): Practical Application (5 SWS)

**Study material**

None

**References**

Strete: Mikrobiologisches Grundpraktikum Steinbüchel & Oppermann-Sanio:

**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 assessment, Assignment

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

Written assessment, Assignment

**Examination methods in case of permanent assessment**

Participation

**Possibilities of retake in case of permanent assessment**

examination during the second examination period is possible

**Extra information on the examination methods**

For the award of credit points it is necessary to pass the module exam.

The module exam contains:

PVL: Online test on the description of the experiments

AP: Lab reports

PVL have to be satisfied before the examination.

**Calculation of the examination mark**