

The Rhine-Waal University of Applied Sciences in Kleve and Kamp-Lintfort offers an innovative, international environment combined with first-rate teaching in interdisciplinary Bachelor and Master's degree courses, taught mainly in English. It is strong in conducting research in disciplines such as technology, natural sciences and social sciences. More than 7,000 students have already enrolled at the Rhine-Waal University of Applied Sciences.

The University of Applied Sciences has to award for the faculty Life Sciences in the Master's degree courses Agribusiness, B.A. at the campus in Kleve in the summer semester 2021 the following

## Lectureship

within the meaning of Section 43 of the Law regarding the Universities in the State of North Rhine-Westphalia (HG NRW):

**Reference number 01LA/21**

**Subject area/Module: „Soil biological resources“**

The lecturer shall take over the lecture in the amount of 4 lecturing hours in the module "Soil biological resources" (2<sup>nd</sup> semester) of the master course Biological Resources, M.Sc.. The lectures shall be held in English.

### Contents

Soil microbial and macrobial resources and their potential use in biotechnology and agriculture (e.g. aromatics, antibiotics, remediation); influence of environmental and human factors (e.g. stressors) on soil biological resources; qualitative and quantitative determination of soil biota by classical techniques and modern molecular biological methods; detection of microbial functions, such as enzyme activity; use and development of cultivation and propagation techniques; application of soil biotechnology; experimental design and statistical analysis

### Learning objectives

On successful completion of this module, students should

- be familiar with soil microbial and macrobial resources and their possible uses<sup>1</sup>
- know how soil biota is influenced by environmental and human abiotic and biotic factors
- be able to relate their knowledge about soil resources to its relevance in the bioeconomy and land use
- be able to apply special analytical lab procedures of soil ecology and microbiology in lab experiments
- be able to analyse and document results and findings in a scientifically appropriate form<sup>4</sup>
- be able to analyse how their data compare with the data of others
- be able to evaluate the potential of soil biological resources in biotechnology and land use
- be able to critically discuss options of a sustainable use of soil biological resources *ex situ* and *in situ*

**Requirements:**

The lecturer shall have a corresponding university degree and have practical experience. Didactic skill and the ability to hold the course with an international group of students in the English language are required (the language level shall be C1 according to the European reference framework).

The Rhine-Waal University of Applied Sciences offers lectures a systematic networking with the university as well as the opportunity of a specific training development to ensure a sustainable skill improvement, a closely link between theory and practice and a support for the personal development of lectures.

It is asked to send in just copies of documents as these cannot be returned.

Please send your application via e-mail **stating the reference number and the module title** addressed to

**Contact person:**

Title Prof. Dr. Florian Wichern

E-mail: [florian.wichern@hochschule-rhein-waal.de](mailto:florian.wichern@hochschule-rhein-waal.de)

For questions and further information please contact the mentioned contact person above.