# Biological Resources, M.Sc.

### **COURSE OUTLINE**

The world's natural resources are limited and slowly being depleted, resulting in a growing demand for skilled specialists who can contribute to the repurposing of existing resources and the discovery of new ones.

The primary goal of Biological Resources M.Sc. is to enhance your understanding of soil, plant, animal and marine resources and inspire you, as a sustainability specialist, to devise new ways to make use of thse resources, thus supporting the development of a bio-based economy. Over the course of your studies, you will acquire the expertise needed to recognise and utilise biological resources in terms of their economic potential, while also taking into consideration critical ecological and social constraints.

The degree programme combines the advanced study of the natural sciences with relevant interdisciplinary subjects such as engineering and bio-economics to impart to you the knowledge to evaluate the future potential of certain biological resources in a scientific manner. This expertise is crucial for example in the development of 'bio-based products' such as bioenergy, biopackaging, bioplastic or new sources of food, to name a few.

Different forms of interactive learning, including applied research projects, excursions, lab and field work, provide further opportunities to acquire expert research skills, e.g. in conducting ecological fieldwork or analysing the components of plant-based biological resources in a laboratory environment.

#### **CAREER OPTIONS**

Graduates are specialists qualified for a broad range of careers in:

- Consultancy positions for government authorities, agencies and/or non-governmental organisations, e.g. environmental protection agencies or organisations,
- Key positions as a sustainability officer or nature conservation officer at national and multinational companies and organisations,
- Research and development positions at universities or in industry.







# Biological Resources, M.Sc.

## **FACT FILE**

Place of study: Kleve

Start date: In winter or summer semester

Duration of study: Three semesters studying full time

Degree awarded: Master of Science, M. Sc.

Language: English

### STRUCTURE OF THE STUDIES

# Summer semester

- Soil biological recourses
- Animal ecology and ecosystem services
- Micro simulation
- Closing cycles: Use and reduction of by-products
- Elective module
- Research project

#### Winter semester

- Underutilized plant resources
- Forest management and governance
- Processing biological resources
- Environmental valuation and economic impactassessment
- Elective module
- Research project

#### Summer semester

Master's thesis

Email: beijing@hochschule-rhein-waal.de tianjin@hochschule-rhein-waal.de