

BIOLOGICAL RESOURCES, M. Sc.

INFORMATION ABOUT STUDY PROGRAMME

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 these 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 socio-economics to impart to you the knowledge and the critical eye to evaluate the future potential of certain biological resources in a scientific manner. This expertise is crucial in countless real-world applications, 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 field-work or analysing the components of plant-based biological resources in a laboratory environment.

CAREER PATHS AND SKILLS

Biological Resources M.Sc. places particular emphasis on acting as an interface to the bio-based economy. Close research cooperation with many companies in the Lower Rhine region affords you the unique chance to acquire valuable practical experience within the bioeconomy during your studies. Graduates are skilled specialists qualified for a broad range of careers in:

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



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STUDY PROGRAMME SUMMARY

Place of study: Kleve

Start date: Winter or summer semester

Duration of study: Three semesters

Study model: Full-time studies

Degree awarded: Master of Science

Language: English

COURSE SCHEDULE

Summer Term

- Simulation of Biological Systems
- Animal Ecology and Ecosystem Services
- Soil Biological Resources
- Closing Cycles: Use and Reduction of By-products
- Elective Module 1
- Research Project

Winter Term

- Environmental Valuation and Economic Impact Assessment
- Forest Management and Governance
- Underutilized Plant Resources
- Processing Biological Resources
- Elective Module 2
- Lecture Series Biological Resources

Master Thesis and Colloquium

Elective Modules 1:

- Biological Resource Value Chains and Sustainability Management
- Marine Bioresources
- Use of Diversity in a Changing World
- Entrepreneurship and Business Management
- Innovation Management
- Module from any Master Study Course at Rhine-Waal University of Applied Sciences

Elective Modules 2:

- Animals in Bioeconomy
- Environmental System Analysis
- Rhizosphere Biology
- Business Planning
- Module from any Master Study Course at Rhine-Waal University of Applied Sciences

Contact

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