Module title			Abbreviation
Transdisciplinary Research			07-MGCS-TR-252-m01
Module coordinator		**Module offered by**	
Dean of the Faculty of Biology		Faculty of Biology	
ECTS	**Method of grading**	**Only after succ. compl. of module(s)**	
10	numerical grade	--	
Duration	**Module level**	**Other prerequisites**	
1 semester	graduate	--	

Contents

The module will include workshops, lectures and seminars on:

- The concepts, including the history, of epistemic dependence, inter-/transdisciplinarity, boundary work, boundary objects, trading zones, unity /plurality of science.
- The concepts, including the history, of reproducibility, exploratory research vs theory-testing, simulation, scientific models, scientific representations.
- Concepts and strategies for fostering stakeholder engagement for effective transdisciplinary research projects to effect change when tackling challenges framed as “wicked” problems.
- The basic knowledge to identify and formulate research questions, critically analyse and review the bibliography and metrics, select appropriate research methodologies, collate, analyse and evaluate qualitative and quantitative data, and the impact and outcomes of an ethically designed research study.
- Different perspectives on science (e.g. positivist and constructivist), the concept of trust in transdisciplinary research, and how success/crisis influences stakeholders.
- Communicate research effectively for different audiences in line with Open Science frameworks.

Intended learning outcomes

Students will develop an advanced understanding of transdisciplinarity to enable them to work in transdisciplinary/multidisciplinary/interdisciplinary teams. They will be able to demonstrate a critical appreciation of the challenges of integrating different disciplinary and transdisciplinary approaches and research methodologies, of ethical and judicious data creation, discovery and utilisation (including storing, processing and analysing data) and assess for specific complex challenges how to master data as a tool for problem identification and solution building.

Courses (type, number of weekly contact hours, language — if other than German)

S (4)
Module taught in: English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

Portfolio (10 to 15 written or oral assessments, each 5 to 10 pages or 10 to 15 minutes)
Oral examinations can also be held as group examinations. The examination time will be determined according to the number of participants, with the specified time frame of 10 to 15 minutes being applied per candidate.
Language of assessment: English

Allocation of places

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Additional information

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Workload

300 h

Teaching cycle

Teaching cycle: every semester

Referred to in LPO I (examination regulations for teaching-degree programmes)

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Module appears in
Master's degree (1 major) Global Challenges for Sustainability (2025)