Module Name Lecture Ecology, Evolution and Environment						
Type of Module o Basic Module			Module Code Ecology Lecture			
Identification Number	Workload	Credit Points	Term	Offered Every	Start	Duration
MN-B-C 1	180 h	6 CP	1st term of studying	Winter term	Winter term only	1 term

1	Course Types	Contact Time	Private Study	Planned Group Size*
	Lecture	49 h	131 h	Approx. 50-70 students

2 Module Objectives and Skills to be Acquired

Students who successfully completed this module

- have acquired detailed knowledge on ecological theory and methods as well as skills on the analysis of experimental data from field and laboratory studies.
- have acquired knowledge on current aspects of evolution in ecological systems and its relationships to the aquatic, terrestrial and chemical environment.
- can solve problems and develop strategies to answer questions related to environmental aspects of ecology and evolution.

3 Module Content

- Aquatic ecology in the anthropocene
- Invasion and fish biology
- Terrestrial ecology
- Microbial ecology
- Chemical ecology
- Abiotic gradients in limnology
- Population ecology and genetics
- Population genomics and ecological genomics
- Community ecology
- Phylogeny and ecology

4 Teaching Methods

- Lecture

5 Prerequisites (for the Module)

Enrollment in the Master´s degree course “Biological Sciences”

Additional academic requirements

The knowledge of ecology on the level of general biology text books (*e.g.* Ecology: From Individuals to Ecosystems by Begon & Townsend or Community Ecology by Verhoef & Morin) is required.

6	Type of Examination Two hours written examination about topics of the lectures (100 % of the total module mark)
7	Credits Awarded Written examination at least "sufficient"
8	Compatibility with other Curricula None
9	Proportion of Final Grade 7.5 %
10	Module Coordinator Prof. Dr. Hartmut Arndt, phone 470 3100, e-mail: teach-ecology@uni-koeln.de
11	Further Information Participating faculty: Prof. Dr. H. Arndt, Prof. Dr. M. Bonkowski, apl. Prof. Dr. J. Borcherding, Prof. Dr. E. von Elert, PD Dr. K. Lampert, Dr. F. Nitsche, JProf. Dr. A.-M. Waldvogel Literature: • Information on recommended textbooks and other reading material will be given on the ILIAS representation of the course (https://www.ilias.uni-koeln.de/ilias/goto_uk_cat_2815610.html) General time schedule: Weeks 1-14: Mon. from 10:00 to 10:45 a.m., Wed. from 10:00 to 11:30 a.m. and Fri. from 12:00 to 12:45 a.m.; Week 15 (Mon.-Fri.): Preparation for the written examination Introduction to the module: October 08, 2021 at 9:00 a.m., online (further information/link will be sent to your Smail-Account); for preparation to the module before this introduction see ILIAS link under literature. Written examination: February 14, 2022, second/supplementary examination March 14, 2022; the latter date may vary if students and module coordinator agree. More details will be given at the beginning of the module.

* Depending on how many students from other subject areas (and if indicated also from other master´s degree courses, see 5) choose this module.