

Ecology, Evolution and Environment - Theory and Methods					
Identification number	Workload	Credit points	Term of studying	Frequency of occurrence	Duration
MN-B-E 1	180 h	6 CP	1 st or higher term of studying	Winter term	15 weeks
1	Type of lessons Lectures		Contact times 49 h	Self-study times 131 h	Intended group size* approx. 50-70
2	Aims of the module and acquired skills Students who successfully completed this module ... <ul style="list-style-type: none"> • have acquired detailed knowledge on ecological theory and methods as well as skills on 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	Contents of the module <ul style="list-style-type: none"> • Introduction to ecological theory and methods • Molecular ecology • Chemical ecology • Ecological stoichiometry • Evolution of species • Micro- and macroevolution • Non-linear interaction in biological systems • Ecosystem dynamics • Anthropogenic impact on ecosystems 				
4	Teaching/Learning methods <ul style="list-style-type: none"> • Lectures 				
5	Requirements for participation Enrollment in the Master´s degree course "Biological Sciences" Additional academic requirements The knowledge of ecology on the level of general biology text books (<i>e.g.</i> Ecology: From Individuals to Ecosystems by Begon & Townsend or Community Ecology by Verhoef & Morin) is required.				
6	Type of module examinations Two hours written examination about topics of the lectures (100 % of the total module mark)				
7	Requisites for the allocation of credits Written examination at least "sufficient"				
8	Compatibility with other Curricula* None				

9	Significance of the module mark for the overall grade 7.5 % of the overall grade
10	Module coordinator Prof. Dr. Hartmut Arndt, phone 470 3100, e-mail: teach-ecology@uni-koeln.de
11	Additional information Participating faculty: Prof. Dr. H. Arndt, Prof. Dr. M. Bonkowski, apl. Prof. Dr. J. Borcharding, Prof. Dr. E. von Elert, PD Dr. K. Lampert, Dr. F. Nitsche, Dr. A. Scherwaß, JProf. Dr. A.-M. Waldvogel Literature: <ul style="list-style-type: none">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_crs_3516842.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: November 02, 2020 at 10:00 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: March 01, 2021, second/supplementary examination March 29, 2021; 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.