

Molecular Plant and Microbial Sciences - Lecture					
Identification number	Workload	Credit points	Term of studying	Frequency of occurrence	Duration
MN-B-P 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 an understanding of advanced concepts and technologies related to the molecular basis of plant and microbe functions. • possess the ability to develop hypotheses through problem analysis and will be able to develop experiments to test these hypotheses. • will be familiar with the current discourse on molecular biological methods in plant and microbial sciences and, with their professional knowledge, will be able to contribute to social debate. • have built cross-linked knowledge that is sustainable and applicable for designing and breeding plants that react in a predictable way to future challenges. • will be in a position to be able to assess the developments in the area of molecular biology including those within a socio-economic context. 				
3	Contents of the module <ul style="list-style-type: none"> • Plant and microbial genomics • Plant genetics and development • Plant cell biology • Plant physiology and biochemistry • Plant population biology • Plant evolution • Plant biotechnology • Plant domestication, agriculture and food security • Plant-microbe interactions • Plant immunology 				
4	Teaching/Learning methods <ul style="list-style-type: none"> • Research-oriented, interactive lectures (incl. <i>e.g.</i> audience response systems and concept mapping) 				
5	Requirements for participation Enrollment in the Master´s degree course "Biological Sciences" Additional academic requirements The knowledge of plant and microbial biology on the level of a general plant biology text book (<i>e.g.</i> Biochemistry & Molecular Biology of Plants by Buchanan <i>et al.</i> or Plant Biology by Harberd <i>et al.</i>) is required.				

6	<p>Type of module examinations</p> <p>Two hours written examination about topics of the lectures (100 % of the total module mark)</p>
7	<p>Requisites for the allocation of credits</p> <p>Written examination at least "sufficient"</p>
8	<p>Compatibility with other Curricula</p> <p>None</p>
9	<p>Significance of the module mark for the overall grade</p> <p>7.5 % of the overall grade</p>
10	<p>Module coordinator</p> <p>Prof. Dr. Gunther Döhlemann, phone 470 1647, e-mail: g.doehlemann@uni-koeln.de</p>
11	<p>Additional information</p> <p>Participating faculty: apl. Prof. Dr. B. Becker, Dr. A. Boisson-Dernier, Prof. Dr. M. Bucher, Prof. Dr. J. de Meaux, Prof. Dr. G. Döhlemann, PD Dr. T. Gigolashvili, Prof. Dr. U. Höcker, Prof. Dr. M. Hülskamp, Prof. Dr. S. Kopriva, PD Dr. S. Krueger, PD Dr. A. Linstädter, Dr. M. Stetter, Prof. Dr. B. Thomma, Prof. Dr. A. Zuccaro</p> <p>Literature:</p> <ul style="list-style-type: none"> Information about 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_3516841.html) <p>General time schedule: Weeks 1-14: Tue. and Thu. from 11:00 to 12:30 a.m.; Week 15 (Mon.-Fri). Preparation for the written examination</p> <p>Introduction to the module: November 03, 2020 at 11:00 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.</p> <p>Written examination: February 19, 2021, second/supplementary examination March 19, 2021; the latter date may vary if students and module coordinator agree. More details will be given at the beginning of the module.</p>

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