

Module Name Lecture Molecular Plant and Microbial Sciences						
Type of Module ○ Basic Module				Module Code Plant Science Lecture		
Identification Number MN-B-P 1	Workload 180 h	Credit Points 6 CP	Term 1 st term of studying	Offered Every Winter term	Start Winter term only	Duration 1 term
1	Course Types Lecture		Contact Time 49 h	Private Study 131 h		Planned Group Size* Approx. 50-70 students
2	Module Objectives and Skills to be Acquired 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	Module Content <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 Methods <ul style="list-style-type: none"> • Research-oriented, interactive lectures (incl. <i>e.g.</i> audience response systems and concept mapping) 					

5	<p>Prerequisites (for the Module) Enrollment in the Master´s degree course "Biological Sciences"</p> <p>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.</p>
6	<p>Type of Examination Two hours written examination about topics of the lectures (100 % of the total module mark)</p>
7	<p>Credits Awarded Written examination at least "sufficient"</p>
8	<p>Compatibility with other Curricula None</p>
9	<p>Proportion of Final Grade 7.5 %</p>
10	<p>Module Coordinator Prof. Dr. Gunther Döhlemann, phone 470 1647, e-mail: g.doehlemann@uni-koeln.de</p>
11	<p>Further Information</p> <p>Participating faculty: apl. Prof. Dr. B. Becker, Prof. Dr. M. Bucher, Prof. Dr. J. de Meaux, Prof. Dr. G. Döhlemann, PD Dr. T. Gigolashvili, Prof. Dr. U. Höcker, Prof. Dr. M. Hülkamp, Prof. Dr. S. Kopriva, Dr. T. Maekawa, 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_cat_2815610.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: October 12, 2021 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 08, 2022, second/supplementary examination March 08, 2022; 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.