

Module Name		Module Code	
Introduction to Molecular Biology		agrigAEF001-01a	
Module Coordinator			
Prof. Dr. Christian Jung			
Organizer			
Institute of Crop Science and Plant Breeding - Plant Breeding			
Faculty			
Faculty of Agricultural and Nutritional Sciences			
Examination Office			
Faculty of Agricultural and Nutritional Sciences - Examination Office			
ECTS Credits	6		
Evaluation	Graded		
Duration	one semester		
Frequency	Only takes place during winter semesters		
Workload per ECTS Credit	30 hours		
Total Workload	180 hours		
Contact Time	60 hours		
Independent Study	120 hours		
Teaching Language	English		
Recommended Requirements			
Fundamental knowledge in biology, genetics and gene technology			
Module Courses			
Course Type	Course Name	Compulsory/Optional	SWS
Lecture	Introduction to Molecular Biology I	Compulsory	1
Lecture	Introduction to Molecular Biology II	Compulsory	1
Practical Exercise	Molecular Biology I	Compulsory	2

Perequisites for Admission to the Examination(s)				
Regular visit of practical exercise are necessary.				
Examination(s)				
Examination Name	Type of Examination	Evaluation	Compulsory / Optional	Weighting
Oral Examination: Introduction to Molecular Biology	Oral Examination	Graded	Compulsory	100
Further Information on the Examination(s)				
<p>1.+2. period in winter semester 1. period in summer semester</p> <p>examiner: oral=100% Dr. Melzer oder Prof. Dr. Jung QIS: xxwith number of Examination xxx</p>				
Course Content				
Isolation of nucleic acids, all major nucleic acids techniques, PCR and its derivatives, hybridization techniques and gel electrophoresis, restriction ligation procedures, cloning into different vector systems, fundamentals of bioinformatics, legal aspects of gene technology				
Learning Outcome				
The students understand how to use basic techniques in molecular biology. They understand the theoretical background and they are able to work with these techniques. They are able to perform basic experiments in molecular biology and genetics and they learn how to apply basic techniques for investigating nucleic acids.				
Reading List				
Textbooks, lab protocols, lecture notes, internet				
Additional Information				
<p>Maximum number of participants: 20 Enrollment by OLAT within workdays Monday through Friday in the 1st week of the 2. audit period of the preceding semester. Following information are necessary: matriculation number last name, first name degree study program stu-Email</p> <p>The allocation of the places takes place in the 2nd week of the 2. audit period of the preceding semester. Acceptance of the place by students only through participation at the first day of the course. Students without a place can get a place at the first day of the course by move-up procedure.</p>				

Use	Compulsory / Optional	Semester
Master, 1-Subject, Agricultural Sciences, Specialisation Agricultural Economics, (Version 2017)	Optional	-
Master, 1-Subject, Agricultural Sciences, Specialisation Agribusiness, (Version 2017)	Optional	-
Master, 1-Subject, Agricultural Sciences, Specialisation Crop Sciences, (Version 2017)	Optional	-
Master, 1-Subject, Agricultural Sciences, Specialisation Animal Sciences, (Version 2017)	Optional	-
Master, 1-Subject, Agricultural Sciences, Specialisation Environmental Sciences, (Version 2017)	Optional	-
Master, 1-Subject, AgriGenomics, (Version 2017)	Compulsory	-
Master, 1-Subject, AgriGenomics, (Version 2010)	Compulsory	-
Master, 1-Subject, Dairy Science, (Version 2017)	Optional	-
Master, 1-Subject, Nutritional and Food Science, (Version 2013)	Optional	-
Master, 1-Subject, Nutritional and Consumer Economics, (Version 2017)	Optional	-
Master, 1-Subject, Nutritional and Consumer Economics, (Version 2013)	Optional	-