

Module Name	Module Code
Genomics in Research and Industry	AEF-agrig005
Module Coordinator	
Prof. Dr. Georg Thaller	
Organizer	
Institute of Animal Breeding and Husbandry - Animal Breeding and Genetics	
Institute of Plant Nutrition and Soil Science - Plant Nutrition	
Institute of Crop Science and Plant Breeding - Plant Breeding	
Institute of Phytopathology - Molecular Phytopathology	
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			
Knowledge of the fundamentals of crop and animal breeding and applications of genomics in agriculture (according to the contents of the modules "Introduction to Crop and Animal Breeding" (MM4) and "Applications of Genomics in Agriculture" (MM7))			
Module Courses			
Course Type	Course Name	Compulsory/Optional	SWS
Seminar	Genomics in Research and Industry	Compulsory	2
Field trip	Genomics in Research and Industry	Compulsory	2

Examination(s)				
Examination Name	Type of Examination	Evaluation	Compulsory / Optional	Weighting
Seminar Paper: Genomics in Research and Industry	Seminar Paper	Graded	Compulsory	50
Assignment: Genomics in Research and Industry	Assignment	Graded	Compulsory	50
Further Information on the Examination(s)				
1.+2. period in winter semester 1. period in summer semester examiner: Assignment = 50% Prof. Dr. Thaller Seminar presentation= 50% Prof. Dr. Thaller or Dr. Melzer or Prof. Dr. Mühling or Prof. Dr. Cai QIS: 90500 with number of Examination 90510 and 90520				

Course Content
High throughput techniques for genotyping and proteomics, industrial standards, application of techniques in animal and plant breeding, processing of data in the context of genomics, proteomics, and metabolomics
Learning Outcome
The students learn and recognize how genomic information is generated at highly qualified research institutes on a large scale. They experience the application of genomic tools and techniques for enhancing novel breeding strategies on the industrial level that aim to improve crop and animal production. They are able to compare different approaches and to judge different procedures implemented in industry
Reading List
Announced at beginning of seminar – topic specific articles will be distributed
Additional Information
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 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. Seminar: weekly during the semester Excursion: block course during winter break regular attendance required to pass as outlined on OLAT

Use	Compulsory / Optional	Semester
Master, 1-Subject, Agricultural Sciences, Specialisation Agricultural Economics, (Version 2017)	Optional	-
Master, 1-Subject, Agricultural Sciences, Specialisation Agricultural Economics, (Version 2013)	Optional	-
Master, 1-Subject, Agricultural Sciences, Specialisation Agribusiness, (Version 2017)	Optional	-
Master, 1-Subject, Agricultural Sciences, Specialisation Agribusiness, (Version 2013)	Optional	-
Master, 1-Subject, Agricultural Sciences, Specialisation Crop Sciences, (Version 2017)	Optional	-
Master, 1-Subject, Agricultural Sciences, Specialisation Crop Sciences, (Version 2013)	Optional	-
Master, 1-Subject, Agricultural Sciences, Specialisation Animal Sciences, (Version 2017)	Optional	-
Master, 1-Subject, Agricultural Sciences, Specialisation Animal Sciences, (Version 2013)	Optional	-
Master, 1-Subject, Agricultural Sciences, Specialisation Environmental Sciences, (Version 2017)	Optional	-
Master, 1-Subject, Agricultural Sciences, Specialisation Environmental Sciences, (Version 2013)	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	-