

Module Title: Crop Functional Genomics							
Module ID/Code: NPW-041 [780800410]							
1. Content and intended learning outcomes							
Learning content:	Lecture on organization, function, mapping and sequencing of genes and genomes and the structure and dissection of transcriptomes and proteomes. Lectures are accompanied by homework assignments. These assignments will be discussed in exercise sessions. The module will be completed by a literature seminar on selected current topics of crop functional genomics.						
Learning outcomes							
After a successful completion of the course, the students... - will understand the basic concepts of Genomics. - will comprehend the complex interactions between genome, transcriptome and proteome. - will be able to analyze multifactorial crossing schemes and generate genetic linkage maps and calculate the genetic distance between genes. - will be able to read, understand and present original research papers and evaluate their content in the context of related publications.							
2. Prerequisites							
obligatory							
recommended							
Maximum number of students							
3. Study program allocation							
Study program						Compulsory/ Elective	Semester
M.Sc. Crop Sciences						E Focus MCS	2.
4. Teaching and learning methodes							
Type of course	Interval	Topic	Language of instruction	Group size	SWS	Workload [h]	
						Contact time	Self-study
L	during the semester	Crop functional genomics	English	60	2,0	30,0	30,0
T*	during the semester	Solving problems in crop functional genomics	English	30	2,0	30,0	30,0
S*	during the semester	Current topics in crop functional genomics	English	15	2,0	30,0	30,0
5. Course cycle				6. Workload [h]		7. Duration	8. Credits (ECTS)
SS				180		1	6,0
9. Requirements for the rewarding of credits (ECTS)							
Types of Assessment	Prerequisites for admission to the Assessment			Graded yes/no	Language (exam)	Weighting factor	
Written exam [780800419]	Successful completion of literature presentation			graded	English	100%	
Presentation [780800418]	Regular participation in lecture and exercise sessions			not graded	English	0%	
Academic Achievements							

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10. Module coordination
Module coordinator
Prof. Dr. Frank Hochholdinger
Teaching person
Dr. Peng Yu; Prof. Dr. Frank Hochholdinger
Institute/ Department
Agrar-, Forst- und Ernährungswissenschaften
11. Further information
Genomes 4 by T.A. Brown, Garland Science