Module number	**MM2**
Module name **Program of study**	**Organization and analysis of eukaryotic genomes** MSc Mandatory Module
Offered	Once a year, winter semester
Module coordinator	Prof. Dr. Christian Jung
Module advisor	Prof. Dr. Christian Jung
Courses and teachers	**Lectures**: Organization of the eucaryotic genome (Prof. Dr. C. Jung with Dr. Carlos Molina) Genome analysis I, structural genome analysis (Prof. Dr. G. Thaller by Dr. J. Tetens) Genome analysis II, functional genome analysis (Prof. Dr. D. Cai)
Prerequisites	Fundamental knowledge in molecular biology, molecular genetics and gene technology
Language	English
Module capacity on campus students	20
Module capacity off campus students	-
Course types (classroom/ total workload)	Lecture (15 h/45 h), lecture (22,5 h/67,5 h), lecture (22,5 h/67,5 h)
Schedule	
Grading	Oral examination: 100% (C. Jung, J. Tetens)
ID-card	Required for exams
European Credit Points	6
Module Objectives	The students understand the structure and evolution of plant and animal genomes. They know the major components of complex eukaryotic genomes. They learn the relevant techniques for structural and functional analysis of plant and animal genomes. They understand how to sequence genomes and to analyze complex genomic sequences.
Contents	structure and evolution of plant and animal genomes, techniques for analyzing eucaryotic genomes, mapping, gene identification, genome sequencing, sequence analysis
Taught skills	Methodical responsibility, key qualifications
Course materials	Textbooks, lecture notes, internet