

Modeling of Dynamic Agri-Ecological Systems					
Code: ENV-230 POS: 749222020		Workload (h) 180	Credits (LP) 6	Duration 1	Turnus SS
Coordinator	PD Dr. Wolfgang Britz				
Lecturers	PD Dr. Wolfgang Britz, David Schäfer				
Teaching unit(s)	Agrar-, Forst- und Ernährungswissenschaften				
Usability	Course program			Mode	Study semester
	M.Sc. Agricultural and Food Economics			WPF	2.
Learning objectives	With the completion of this course, the students have acquired advanced competence in the concepts, formulation and interpretation of farm-scale bio-economic programming approaches. Furthermore, they have been introduced to the General Algebraic Modelling System (GAMS) and are capable of independently modifying farm-scale economic simulation models in this modelling language.				
Key competences	Conceptualization of bio-economic farm-scale problems, computer programming, systems thinking, analysis of programming models				
Learning content	Basics of linear and mixed-integer linear programming, programming solutions to farm scale problems related to (1) branch management (crop and feed mix optimization, herd dynamics, resource use), (2) environmental indicators and related policy instruments, (3) investment and financing, (4) risk and risk behavior, (5) dynamic stochastic aspects.				
Language	English				
Prerequisites	none				
Maximum number of students					
Courses	Teaching method	Topic	Class size	Contact time per week	Workload [h]
	V Ü	Bio-economic modelling at farm-scale (ratio V:Ü 1:1)	15	4,0	180
Examination(s)	Code	Type of examination	Duration of examination		
	749222029	Assignment	semesterbegleitend		graded
Prerequisites for admission to the exam	none				not graded
Other					