

Module variant to: Foundations of Biodiversity, Evolution and Ecology

Module: Applied Aspects of Plant-Insect Interactions			
University/Department/Teaching Unit: Freie Universität Berlin/Department of Biology, Chemistry, Pharmacy/Biology			
Module coordinator: Andreas Reinecke			
Prerequisites: none			
Learning objectives: Students acquire a sound overview of practice-related working principles of plant-insect interactions. They have the competence to screen relevant state of the art literature for potential sustainable applications in plant protections, to secure yields and further biodiversity. They will gain insights on competences as well as the framework required to put ecological research to practice and conceptualise own projects. They have the competence to understand the contents of subject-specific publications, to discuss them in the context of the current state of research and to present them in a professional manner.			
Content: Ecological and economic aspects of mutualistic and antagonistic plant-insect interactions, ecosystem services and anthropogenic impacts on these; underlying mechanisms (plant signals, behaviour and sensory input of herbivores as well as their antagonists); utilisation of biological interactions to increase yield, foster pest control and further biodiversity; regulatory framework. Critical analysis and synthesis of scientific publications. Presentation of research results and project outlines.			
Modes of instruction	Contact hours (hours per week during the semester)	Types of active participation	Workload (in hours)
Seminar (S)	1	–	Class attendance (seminar) 15 Preparation, before and after (seminar) 15
Practice sessions (Ü)	2	Carrying out and documenting experiments	Class attendance (practice session) 30 Preparation, before and after (practice session) 15 Exam preparation and exam 75
Module assessment		Written exam (60 minutes), wholly or partially in multiple-choice format; can also be carried out electronically or written report on research results (approx. 10 pages) or examination colloquium (approx. 20 minutes)	
Language		English	
Regular attendance required		yes	
Total workload		150 hours	5 credit points
Duration		one semester	
Frequency		irregular	
Applicability		Master's degree program M.Sc. Biology; Master's degree program M.Sc. Biodiversity, Evolution and Ecology	

Utilization in the following specializations (decision by the examining board):

Biodiversity, Evolution and Ecology	x
Genetics and Genomics	
Microbiology	
Molecular- and Cellular Biology	
Molecular Plant Sciences	
Neurobiology	
Biology	x