

## Module variant to: Molecular Plant Science

<b>Module:</b> Applied Plant Bioinformatics				
<b>University/Department/Teaching Unit:</b> Freie Universität Berlin/Department of Biology, Chemistry, Pharmacy/Biology				
<b>Module coordinator:</b> Margarete Baier				
<b>Prerequisites:</b> none				
<b>Learning objectives:</b> Students can collect, evaluate, and present plant bioinformatics data, and can plan and conduct experiments to use and analyze them. They can critically evaluate methods and results, based on the interplay of "wet" laboratory biology, bioinformatics and literature.				
<b>Content:</b> We will address current research topics of molecular plant (stress) physiology, work with bioinformatic data bases, analyze bioinformatic data and develop working hypotheses which we will finally test in the lab.				
<b>Modes of instruction</b>	<b>Contact hours</b> (hours per week during the semester)	<b>Types of active participation</b>	<b>Workload</b> (in hours)	
Lecture (V)	2	–	Class attendance (lecture) Preparation, before and after (lecture)	30 60
Seminar (S)	1	Presentation and discussion	Class attendance (seminar) Preparation, before and after (seminar)	15 50
Sicherheitsrelevantes Praktikum (SPC)	5	Report on independently conducted data analysis in the form of a methods and results section of a scientific article	Class attendance (SPC) Preparation, before and after (SPC)  Exam preparation and exam	75 30  40
<b>Module assessment</b>		Written report on research results (approx. 10 pages) or examination colloquium (approx. 20 minutes)		
<b>Language</b>		English		
<b>Regular attendance required</b>		Seminar and PC-based seminar: yes, lecture: attendance recommended		
<b>Total workload</b>		450 hours	10 credit points	
<b>Duration</b>		one semester		
<b>Frequency</b>		irregular		
<b>Applicability</b>		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	x
Microbiology	
Molecular- and Cellular Biology	x
Molecular Plant Sciences	x
Neurobiology	
Biology	x