

M.Sc. Study programme: Biodiversity, Ecology, and Evolution (BEE) at Göttingen University							
Georg-August-University Göttingen							
Current list of all ENGLISH modules (64 = 74%) offered in the MSc study programme "BEE": 01.10.2022							
Valid from winter term 2022/23 onward (without guarantee)							
Organised by PD Dr. D. Gansert (dganser@gwdg.de)							
Tel. 0049-551-39-12404							
KC:= Key competence; C:= Colloquium; V:= Lecture; UE:= Practice; S:= Seminar; GK:= Field course							
Module number	Title	Responsible docent	ECTS	Semester week hours	Summer term	Winter term	Language
M.Biodiv.401	Biodiversity (Compulsory Module)	Gansert	12	16			english
	one out of seven						
401.a	UE: Practice in pollen analysis	Behling	3	5		+	
401.b	UE: Identification of hymenoptera (M.Agr.0088)	Westphal et al.	3	5		+	
401.c	UE: Identification of grasses and grass-like plants	Hertel et al.	3	5	+		
401.d	UE: Biology and ecology of diptera	Hövemeyer	3	5	+		
401.e	UE: Biodiversity and ecology of indigenous avifauna	external docent	3	5	+		
401.f	UE: Identification of mosses and lichens	Kaufmann/Drehwald	3	5		+	
401.h	UE: Moth diversity and ecology	Kamp	3		+		
401,3	UE: 4 Field daytrips, 2 in botany, 2 in zoology		4	4	+		
401,4	UE: Extended field trip in botany or zoology		5	7	+	(+)	
M.Biodiv.402	Plant Ecology and Ecosystem Research	Leuschner	6	4			english
402.1	V: Vegetation and ecology of the earth	Leuschner et al.		2		+	
402.8	V: Ecosystems research, C-balance, and global warming	Gansert		2		+	
402.4	S: Current topics in plant ecology and nature conservation	Hertel		2		+	
402.6	S: Aut-and synecology of plants: The tropics	Homeier		2		+	
	S: Influence of global change on ecosystem processes, matter fluxes and diversity in temperate and boreal forests towards the subarctic tundra	Weigel		2	+		
M.Biodiv.403	Vegetation Ecology and Vegetation History	Bergmeier, Behling	6	4			english
402.1	V: Vegetation & ecology of the earth	Leuschner et al.		2		+	
403.1	V: General and plant sociological vegetation ecology	Bergmeier		2		+	
403.2	V: General vegetation history of the earth	Behling		2	+		
403.3	S: Applied vegetation ecology of the Mediterranean (annual alternation with 403.4)	Bergmeier		2		+	
403,4	S: Modern issues of vegetation science in agricultural landscapes (annual alternation with 403.3)	Bergmeier		2		(20/21)	

	S: Influence of global change on ecosystem processes, matter fluxes and diversity in temperate and boreal forests towards the subarctic tundra	Weigel		2	+		
M.Biodiv.404	Animal Ecology	Scheu	6	4			english
404.1	V: Animal ecology			2		+	
404.2	S: Topics in animal ecology and evolution			2		+	
M.Biodiv.406	Regional Vegetation Ecology and Phytodiversity	Bergmeier	6	4			english
406.1	V: Habitat types of the FFH-Guideline			2		+	
403.3	S: Applied vegetation ecology of the Mediterranean (annual alternation with 403.4)			2		+	
403.4	S: Modern issues of vegetation science in agricultural landscapes (annual alternation with 403.3)			2		(20/21)	
M.Biodiv.408	Primate Ecology	Heymann	6	8			english
	V: Primate ecology			2	+		
	UE: Primate ecology			6	+		
M.Biodiv.412	Conservation Biology	Kamp	6	4			english
412.1	V: International nature conservation	Kamp		2		+	
412.2	V: The song of the Dodo - Origins of Conservation Biology	Waltert		2		+	
412.3	S: Botanical nature conservation and environmental care	Leuschner et al.		2	+		
M.Forst.1512.1	S: Global environmental and forest policy	Hubo		2		+	
M.Agr.0089	S: Ecological Seminar	Westphal		2			
M.Biodiv.413	Education for sustainable development: Focus education of biodiversity	Bögeholz/Böhm	6	4			english
	Education for sustainable development: Focus education of biodiversity			2	+		
	Education for biodiversity			2	+		
M.Biodiv.417	Scientific Project Management and Specific Research Methods (Compulsory Module, individually organised)	Gansert	6	6			english
	K: Modern Research in Biodiversity and Ecology	Gansert		2	+	+	
	UE: Conception and presentation of a scientific research concept	Docents of BEE		4	+	+	
M.Biodiv.418	Pro- and Eucaryotic Algae: Evolution and Systematics	Friedl	6	4			english
418.1	V: Phylogeny and systematics of plants and algae: biology and phylogeny of algae			2		+	
418.2	S: Plant systematics & phycology			2	+	+	
M.Biodiv.419	Pro- and Eucaryotic Algae: Algae and Lichens	Friedl	6	5			english
419.2	S: Current topics of phycology			1		+	
419.3	UE: Field research: Algae and lichens in the Alpine foothills			4	+		
M.Biodiv.422	Plant Ecology: CO₂- and H₂O-balance of Trees	Leuschner	6	8			english
422.1	V: Carbon and water balance of trees	Kotowska		2	+		

422.2	UE: Photosynthesis, respiration, and transpiration	Kotowska		6	+		
M.Biodiv.423	Plant Ecology: Study of Habitats	Hertel	6	8			english
423.1	V: Plant ecological studies of habitats			2	+		
423.2	UE: Studies of habitats of different forest types near Göttingen			6	+		
M.Biodiv.424	Plant Ecology: Field studies of Plant Ecology, Phytodiversity, and Ecosystem Research	Leuschner	6	8			english
424.1	S: Ecosystems and field research			2	+		
424.2	UE: International field studies			6	+		
M.Biodiv.425	Evolution of Embryophyta	Hörandl	6	4			english
425.1	V: Speciation and evolution of land plants			2		+	
425.2 / 418.2	S: Plant systematics and phycology			2	+	+	
M.Biodiv.426	Reproduction and evolution of flowering plants	Hörandl	6	4			english
	UE: Developmental and reproductive biology of flowering plants			3	+		
	V: Reproductive strategies of flowering plants			1	+		
M.Biodiv.428	Biodiversity and biogeography of embryophyta	Hörandl	6	4			english
	S: Introduction into tropical and alpine flora			1	(+)	+	
	UE: Alternating field excursion: Tropics or Alps			3	+	(+)	
M.Biodiv.430	Vegetation History: Project Study in Palaeoecology and Palynology	Behling	6	8			english
430.1	S: Current topics in palynology and climate dynamics			2	(+)	+	
430.2	UE: Palaeoecology and palynology			6	(+)	+	
M.Biodiv.431	Vegetation Ecology: Applied Vegetation Ecology & Multivariate Analysis	Bergmeier	6	8			english
431.1	V: Basics and methods of data sampling in vegetation ecology and multivariate analysis			2	+		
431.2	UE: Grassland vegetation and multivariate vegetation analysis			6	+		
M.Biodiv.433 (KC)	Vegetation History: Multivariate Analysis in Palaeoecology	Behling	3	4			english
433.1	V/S: Statistics in palaeoecology			1	+		
433.2	Multivariate data analysis			3	+		
M.Biodiv.434 (KC)	Vegetation History: Introduction in Cultivated Plant History	Behling	3	4			english
434.1	V: Introduction in cultivated plant history			1	+		
434.2	UE/S: Practice in cultivated plant history - microscopic investigation of subfossil plant relics			3	+		
M.Biodiv.435	Vegetation Ecology and Vegetation History: Field studies in Phytodiversity, Vegetation Ecology, and Palaeoecology (specific announcement)	Bergmeier, Behling	6	8			english
435.1	S: Phytodiversity and palaeoecology of a natural and culture area			2	+	(+)	

435.2	UE: International field studies			6	+	(+)	
M.Biodiv.436 Vegetation Ecology: Project Study of Vegetation and Phytodiversity (individual arrangement)							
		Bergmeier		6	4		english
436.1	S: Current topics in vegetation ecology and phytodiversity			2	+		
436.2	UE: Vegetation analysis and phytodiversity			2	+	(+)	
M.Biodiv.437 Vegetation History: Methods in Paleoecology							
	V: Methods in paleoecology	Behling		6	8		english
	UE: Methods in paleoecology			1	+		
	S: New results in paleoecological and palynological research			5	+		
				2	+		
M.Biodiv.441 Animal Ecology: Evolutionary Ecology							
	V: Evolutionary ecology	Maraun, Schäfer		6	8		english
441.1	UE: Evolutionary ecology - experiments			2		+	
441.2				6		+	
M.Biodiv.442 Animal Ecology: Synecology of Animals							
	V: Synecology of animals	Maraun		6	8		english
442.1	UE: Synecology of animals - experiments			2	+		
442.2				6	+		
M.Biodiv.443 Animal Ecology: Field Studies in Animal Ecology and Zoological Biodiversity							
	S: Field studies in animal ecology and zoological biodiversity	Scheu		6	8		english
443.1	UE: Field studies of mediterranean ecosystems (aquatic and terrestrial)			2	+		
443.2				6	+		
M.Biodiv.445 Animal Ecology: Molecular analysis of trophic interactions in soil food webs							
	V: Molecular analysis of trophic interactions in soil food webs	Scheu		6	8		english
	UE: Molecular analysis of trophic interactions in soil food webs			2	+		
				6	+		
M.Biodiv.446 Molecular zoology and insect biotechnology							
	V: Gene function analysis in diverse animals and applications in pest control	Bucher		6	8		english
	S: Designing experiments to study gene function			2	+		
	UE: Introduction to molecular work and methods for gene function studies			2	+		
				4	+		
M.Biodiv.447 Animal Ecology: Biodiversity, Ecology and Evolution of Terrestrial Invertebrates							
	V: Biodiversity and ecology of terrestrial invertebrates	Scheu		6	7		english
	UE: Biodiversity and ecology of terrestrial invertebrates			2		+	
				5		+	
M.Biodiv.450 Plant Ecology: Impact of global climate change on plant communities and their functional traits							
	V: Impact of global climate change on plant communities	Leuschner, Weigel		6	8		english
	UE: Impact of global climate change on plant communities	Weigel		2		+	
		Weigel		6		+	

M.Biodiv.460	Pro- and Eucaryotic Algae: Molecular Determination of Biodiversity of Algae and their Evolution	Friedl	6	8		english
460.1	V: Biodiversity of algae and their evolution			2	+	
460.2	UE: Molecular methods for the determination of biodiversity using algae as an example			6	+	
M.Biodiv.461	Pro- and Eucaryotic Algae: Ex situ Conservation of Biodiversity of Algae	Lorenz	6	8		english
461.1	V: Pro- and Eucaryotic Algae: Ex situ Conservation of Biodiversity of Algae			1	+	
461.2	UE: Methods of ex situ conservation of algae			7	+	
M.Biodiv.470	Morphology of animals: Microscopical methods in comparative morphology	Fischer Ch.	6	8		english
470.1	V: Investigation of animal tissues by electron microscopy			2		+
470.2	UE: Investigation of animal tissues by electron microscopy			6		+
M.Biodiv.478	Field studies in systematics, biodiversity, & ecology of marine invertebrates	Bleidorn	6	8		english
	V: Introduction to marine biology			2		+
	S, UE: Field studies in systemat., biodiv. and ecol. of marine invertebrates			6		+
M.Biodiv.479	Introduction to Phylogenomics	Bleidorn	6	6		english
	V: Introduction to phylogenomics			1		+
	S: Introduction to phylogenomics			1		+
	UE: Introduction to phylogenomics			4		+
M.Biodiv.481	Conservation Biology: Population Biology in Nature Conservation	Gottschalk	6	8		english
481.1	V: Population viability analysis			2		+
481.2	UE: Population viability analysis			6		+
M.Biodiv.482	Conservation Biology: Field Studies in Conservation Biology	Waltert	6	8		english
482.1	V: Field studies in conservation biology			1	+	
482.2	S/UE: Field studies in conservation biology			7	+	
M.Biodiv.483	Conservation Biology: Assessment of Wildlife Species for Nature Conservation	Waltert	6	8		english
483.1	V: Theoretical background of population assessment			2		+
483.2	UE: Analysis, interpretation, and management of stand data			6		+
M.Biodiv.488	Conservation Biology: Ornithology	Gottschalk	6	8		english
	V: Biology of selected bird species			2	+	
	UE: Identification of birds in the field and methods in ornithology			6	+	
M.Biodiv.490	Project Studies in Plant Systematics, Evolution and Phylogeny	Hörandl	6	4		english
	UE: Research project (individual arrangement)			4	+	+

M.Biodiv.491	Next generation sequencing for evolutionary biology	Appelhans	6	4		english
	V: Next generation sequencing: methods, data analysis and applications			0,5	+	
	S: Next generation sequencing: examples of botanical and zoological studies			0,5	+	
	UE: Analysis of next generation sequencing data			3	+	
M.Biodiv.492	Molecular methods for "Next Generation Sequencing" in Evolutionary Biology and Systematics	Tomasello	6	4		english
	V: Introduction into molecular markers			1		+
	UE: Target enrichment and Nanopore Sequencing			3		+
M.Biodiv.500	Biological and forensic trace interpretation	Hummel	6	4		english
	V: Degraded DNA - Introduction and basics of analysis			2		+
	V: Basics of biological trace interpretation and forensic anthropology			2		+
M.Biodiv.501	Forensic Anthropology and demonstration course dissection	Hummel	6	8		english
501,1	S: Individualising features of the skeleton			2	+	
501,2	UE: Diagnostics of individualising features of the skeleton			4	+	
501,3	UE: Demonstration of dissection			2	+	
M.Biodiv.502	Analyses of degraded DNA - Genetic fingerprinting and quality assurance	Hummel	6	7		english
	S: STR-Typing and authenticity assurance			2	+	
	UE: STR-Analysis of materials of European ring experiments			5	+	
M.Biodiv.503	Forensic Microbiology	Hoppert	6	7		english
	UE: Practice of microbiology in trace interpretation			5	+	
	S: Current problems in microbial analysis			2	+	
M.Biodiv.504	Palynology and Analyses of Macro-Relics	Behling	6	7		english
	V: Vegetation history of Europe and non-european countries			2	+	
	S/UE: Palynology and Analyses of Macro-Relics			5	+	
M.Biodiv.505	Anthropology I: Structure Analysis	Hummel	6	7		english
	S: Structure analysis of unburnt and burnt skeleton material			2		+
	UE: Macro- and microscopic analyses of human hard tissue			5		+
M.Biodiv.506	Anthropology II: Palaeogenetics	Hummel	6	8		english
	S: Basics of typing of strongly degraded DNA			2		+
	UE: Genetic typing of (pre-)historic skeleton material			6		+
M.Biodiv.600	Introduction to Phylogenetics	Bleidorn	6	8		english
	V: Introduction to phylogenetics			1	+	
	S: Introduction to phylogenetics			1	+	
	UE: Introduction to phylogenetics			6	+	
M.Biodiv.605	Project Studies in Animal Evolution and Biodiversity	Bleidorn, Aguado	6	4		english

	S: Current topics in evolution and biodiversity of animals			1	+	+	
	UE: Research project			3	+	+	
M.Biodiv.610 (KC)	Science Communication in Biodiversity Research (KC)	Aguado	6	4			english
610,1	V: Introduction to science communication			1		+	
610,2	S: Introduction to science communication			1		+	
610,3	UE: Science communication in biodiversity research			2		+	
M.Geg.17	Landscape Ecology	Sauer	6	4		+	english
M.Agr.0009	Biological Control and Biodiversity	Rostas	6	6		+	english
M.Bio.101 (Biodiv)	General and Applied Microbiology	Stülke	12	14		+	english
M.Bio-NF.306	Introduction into Behavioural Biology	Makolf	12	12		+	english
	V: Introduction into behavioural biology			2			
	UE: Practice of methods in behavioural biology			8			
	S: Concepts of behavioural biology			2			
M.Bio-NF.307	Behavioural Biology	Kappeler, Fichtel	12	14	+		english
	V: Behavioural biology	Fichtel		3			
	UE: Practice in behavioural biology (Madagaskar, Peru)	Kappeler		10			
	S: Behavioural biology	Fichtel		1			
M.Bio.346 (KC)	Introduction into Behavioural Biology	Markolf	6	4		+	english
	V: Introduction into behavioural biology			2			
	S: Concepts of behavioural biology			2			
M.Bio.347 (KC)	Behavioural Biology	Fichtel	6	4	+		english
	V: Behavioural biology			3			
	S: Behavioural biology			1			
M.FES.115	Statistical Data Analysis with R	Meyer, Katrin	6	4		+	english
M.FES.124	Modern Concepts and Methods in Macroecology and Biogeography	Kreft	6	4	+		english
M.FES.122	Ecological Simulation Modelling	Wiegand, Kerstin	6	4	+		english
M.INC.1006	Data Analysis for Field Biologists	Kamp	6	8		+	english

