Title:	Biological Diversity		
Code number:	107E	**Type:**	Optional Compulsory
Level:	Postgraduate		
Year:	3	**Semester:**	F
ECTS Units:	4	**Teaching Units:**	3
Lecturer(s):	P.G. Dimitrakopoulos		
Content outline and weekly schedule:	1. A brief history of a concept: why be concerned by biological diversity? 2. Biodiversity through time 3. Present-day biodiversity on earth – Recent and future extinctions. 4. Species distribution patterns (endemism, dispersal, barriers). Biotic relationships. 5. Biodiversity patterns I: Geographical patterns, energy (productivity) 6. Biodiversity patterns II: climate, and structural factors (disturbance, heterogeneity). 7. Measuring biological diversity 8. Biodiversity and ecosystem functioning: theory and experiments 9. Biodiversity and ecosystem functioning: searching for mechanisms 10.biodiversity and 'stability' of ecosystems 11.Plant functional traits and ecosystem functions 12.Biodiversity and biological invasions 13.Biodiversity and global changes **Laboratory exercises:** 1. The role of edaphic factor in shaping species diversity and community evenness 2. Beta diversity and community productivity 3. Biodiversity and ecosystem functioning: searching for mechanisms 4. Plant functional traits and ecosystem functions		
Learning Outcomes:	1. To understand basic concepts related to biodiversity. 2. To understanding the role of biodiversity on ecosystem functioning and the consequences of its reduction to human society. 3. To understand the impact of biological invaders and global changes on biodiversity and ecosystem functioning.		
Prerequisites:	-		
Recommended Reading:	**Lecture notes:**	P. Dimitrakopoulos. Biological diversity (in Greek).	
	Basic textbooks:	GASTON K – SPICER J, (2008), *ΒΙΟΠΟΙΚΙΛΟΤΗΤΑ: ΜΙΑ ΕΙΣΑΓΩΓΗ (2η έκδοση),* UNIVERSITY STUDIO PRESS, ΘΕΣΣΑΛΟΝΙΚΗ	
	Additional References:	• Wilson E.O. 1992. The diversity of life. Penquin, ISBN: 0-14-016977-6. 406pp. • Magurran A. 2004. Measuring biological diversity. Wiley. • Blondel J. & Aronson J. 1999. Biology and Wildlife of the Mediterranean region. Oxford University press,	

		Oxford. • Leveque J. & Mounolou J-C. 2003. Biodiversity. John Wiley & Sons • S Naeem, DE Bunker, A Hector, M Loreau, C Perrings.2009. Biodiversity, Ecosystem Functioning, and Human Wellbeing. Oxford.
	Internet links:	http://darwin.bio.uci.edu/~sustain/bio65/Titlpage.htm: http://www.cbd.int/ http://www.diversitas-international.org/ http://data.gbif.org/
Learning Activities and Teaching Methods:	**Lectures (hours/week):**	2
	Practicals-Tutorials (hours/week):	1
	Other learning activities:	-
Assessment/Grading:	Laboratorial exercises (30%), written examination at the end of the semester (70%)	
Instruction Language:	Greek	
Mode of delivery:	Face-face	