

Course title	Forest ecology						
Code	ZDIB22						
Study	Postgraduate Interdisciplinary University Study Programme <i>Environment Protection and Nature Conservation</i>						
Semester	III						
ECTS	5						
Course state	Elective						
Professors	Prof. dr. sc. Oleg Antonić						
Colaborators							
Entrance conditions	None						
Aim	The aim of the course is to guide students about complexity, specificity and tipology of forest ecosystems, as well as about importance of forests for sustainable spatial management.						
Learning outcomes	<p>After successfully completing the course, the students will be able to:</p> <ol style="list-style-type: none"> 1. Understand the basis of forest tree ecology. 2. Understand the forest as a complex ecosystem. 3. Describe the forest variability in space and time. 4. Define factors which control emergence, survival and disappearance of forest. 5. Describe the role of forests in sustainable spatial management. 						
Connections between students activity, learning outcomes and evaluation	Students activity	ECTS	Learning outcomes	Course activity	Evaluation methods	Points*	
						min	max
	Attendance and active participation	2	1-5	Lectures	Minutes	20	40
	Preparation for the exam	3	1-5	Final exam	Oral exam	35	60
	Total	5				55	100
Consultations	According to the students need						
Teaching form	Lectures		Seminars		Exercises		
No. of hours	10				5		
Content	Forest as the most complex ecosystem on Earth. Global ecological amplitude of forests. Major types of forest vegetation on Earth. Forest variability in geographical and ecological space. Actual and potential forest vegetation. Succession and degradation forest stages. Forest syndynamics. Climazonal, extrazonal and edaphically conditioned forests. Levels of bioecological resolution and suitable methods for the forest cover research. Ecological gradients and continuum/discontinuum controversy. Coenological and physiognomical approach to forest typology. Tree growth and increment as retroactive environmental monitoring. Dominant tree species and its ecology. Potential and realized ecological niche. Intraspecies and interspecies spatial competition. Forest and soil. Forest and air. Forest and water. Forest and human.						

	Faunistic and mycobiotic components of forest. Biodiversity and stability of forest ecosystem. Especially endangered forest types. Forest and global ecological change.
Compulsory literature	Waring R.H., Running S.W. (1998) Forest Ecosystems: Analysis at multiple scales. Rauš, Đ. (Ed.) (1992) Šume u Hrvatskoj.
Optional literature	Archibold O.W. (1995) Ecology of World Vegetation. Glavač (2001) Uvod u globalnu ekologiju.
Completion condition	Active participation in the course
Exam form	Seminar and oral
Possible teaching languages	Croatian or English
Form of quality monitoring	Minutes of lectures and seminars, student questionnaire