

COURSE DESCRIPTION CARD

Faculty of Civil Engineering and Environmental Sciences									
Field of study								Degree level and programme type	
Specialization/ diploma path								Study profile	Academic profile
Course name	Landscape ecology							Course code	IS-FCEE-00075W
								Course type	Erasmus
Forms and number of hours of tuition	L	C	LC	P	SW	FW	S	Semester	Winter
	15			15				No. of ECTS credits	4
Entry requirements	Ecology, Soil science, Nature conservation								
Course objectives	Knowledge on the mutual relationship between the different components of the landscape and their function and structure								
Course content	<p>Basic definitions and terms used in the landscape ecology. The mutual relationship between the different components of landscape ecology and other disciplines of nature and earth sciences. Elements, features, parts and units of the landscape. 'Patch - corridor - landscape matrix' pattern. The functioning of ecological corridors. Biogeographic theory of the islands and landscape patches as the environmental islands. The concept of metapopulation. Boundaries, ecotones and barriers in the landscape pattern. Biodiversity of the landscape of different spatial patterns. Influence of the spatial structure of the landscape on the functioning of plant and animal populations. Methods of the analysis of the spatial structure of the landscape. Classification and the typology of the landscape. Transformation of the landscape. Application of landscape ecology in nature protection and landscape planning. Analysis of connections between different elements of the landscape. Map of the landscape units.</p>								
Teaching methods	Lecture - presentation, the project - presentation, discussion								
Assessment method	Lecture - Exam; the project - a description and discussion of the project								
Symbol of learning outcome	Learning outcomes							Reference to the learning outcomes for the field of study	
LO1	student has knowledge of the structure and functioning of the different components of the landscape							K_W03, K_W11	
LO2	recognizes and understands the relationship between elements, features, parts and units of the landscape							K_W05, K_W18, K_U18, K_U22	
LO3	know how to identify patch, corridor, landscape matrix' pattern, boundaries, ecotones and barriers in the landscape							K_W16, K_U18, K_U22, K_K02	
LO4	know how to classify landscape and recognizes the typology of the landscape							K_W11, K_W12, K_U22	
LO5	know how to choose and use the research methods used in							K_U23	

	landscape ecology	
LO6	know how to work in a team	K_U03, K_K04
Symbol of learning outcome	Methods of assessing the learning outcomes	Type of tuition during which the outcome is assessed
LO1	tests on lecture content, student's reports, discussion, description of project	lecture, project, consultation
LO2	evaluating the student's reports and preparation for the classes, tests on lecture content, discussion, description of project	lecture, project, consultation
LO3	evaluating the student's reports and preparation for the classes, tests on lecture content, discussion, description of project	lecture, project, consultation
LO4	tests on lecture content, student's reports, discussion, description of project	lecture, project, consultation
LO5	evaluating the student's reports and preparation for the classes, discussion, description of project	project
LO6	discussion, description of project	project
Student workload (in hours)		No. of hours
Calculation	lecture attendance	15
	participation in classes, in project	15
	participation in student-teacher sessions related to the class/ project	10
	preparation for classes, projects	15
	work on projects, reports, etc	15
	implementation of project tasks	15
	preparation and participation in exams	10
TOTAL:		95
Quantitative indicators		HOURS
		No. of ECTS credits
Student workload – activities that require direct teacher participation		50
Student workload – practical activities		45
Basic references	1) Richling A., Solon J. Landscape ecology. PWN Warszawa, 2011. 2) Weiner J.: Biosphere life and evolution. PWN, Warszawa, 2008. 3) Krebs Ch.J.: Ecology. Experimental Analysis of Distribution and Abundance. Pearson Education, Inc., 2009. 4) Mackenzie A., Ball A.S., Virdee S.R.: Instant Notes Ecology. BIOS Scientific Publishers Limited, 2001. 5) Kornas J., Medwecka-Kornas A.: Geography of plants. PWN, Warszawa, 2002.	
Supplementary references	1) Matuszkiewicz J.M.: Plant communities of Poland. PWN, Warszawa, 2005. 2) Forman R.T.T.: Land Mosaics: The Ecology of Landscapes and Regions. Cambridge Univ. Press, Cambridge 1999.	
Organisational unit conducting the course	Department of Agri-Food Engineering and Environmental Management	Date of issuing the programme
Author of the programme	Assoc. Prof. Grażyna Łaska, DSc, PhD	12-03-2021

L – lecture, C – classes, LC – laboratory classes, P – project, SW – specialization workshop, FW - field work, S – seminar