COURSE DESCRIPTION CARD

Faculty of Civil Engineering and Environmental Sciences									
Field of study								**Degree level and programme type**	**MSc.**
Specialization / diploma path								**Study profile**	**Practical profile**
Course name	**Invasive species in forest areas**							**Course code**	**IS-FF-00042S**
								Course type	**Erasmus**
Forms and number of hours of tuition	**L**	**C**	**LC**	**P**	**SW**	**FW**	**S**	**Semester**	**Summer**
	15			**15**		**15**		**No. of ECTS credits**	**4**
Entry requirements	Ecology, Nature protection								
Course objectives	The aim of the course is to familiarize students with changes occurring in forest ecosystems caused by the spread of invasive species intentionally introduced into ecosystems or accidentally dragged as well as assessing invasive potential and preventing invasions. The student learns the mechanisms of biological invasions, their history and scale as well as methods and costs of mitigating invasive organisms and the effects of invasion.								
Course content	Biological invasions: the essence of the phenomenon, the basic concepts used in the study of biological invasions, international legal instruments to prevent and mitigating the invasion. Features of the biology of invasive plant and animal species. Sources of biological invasions. Impact of environmental transformations by the invasions. Changes in forest ecosystems caused by invasive species populations. Invasive species of greatest importance in forest management. Techniques and costs of mitigating biological invasions in forests.								
Teaching methods	Lecture, exercises, presentation								
Assessment method	Lecture - written tests; project, field workshop - project and report evaluation								
Symbol of learning outcome	**Learning outcomes**								**Reference to the learning outcomes for the field of study**
LO1	The student knows the concepts used in biological invasion studies.								L2P_W05
LO2	The student knows the features of the biology of invasive plant and animal species and the sources of biological invasion.								L2P_W05
LO3	The student is able to determine the state of health and make a forecast of threats to the forest environment.								L2P_U08
LO4	Student is able to select techniques and calculate the costs of combating biological invasions in forests.								L2P_U06
Symbol of learning outcome	**Methods of assessing the learning outcomes**								**Type of tuition during which the outcome is assessed**
LO1	final test for lectures								L

LO2	final test for lectures	L
LO3	project and reports evaluation	P, FW
LO4	project and reports evaluation	P, FW
Student workload (in hours)		**No. of hours**
Calculation	Participation in the lectures	15
	Participation in the project classes	15
	Participation in consultations	15
	Preparation of projects and reports	10
	Preparation for passing the final test	5
	Preparation of the report of fieldwork	10
	Preparation of presentation	10
	Total:	80

Quantitative indicators	**Hours**	**No. of ECTS credits**
Student workload – activities that require direct teacher participation	50	2
Student workload – practical activities	60	2

Basic references	Alexander M. 2012. Management Planning for Nature Conservation. A Theoretical Basis & Practical Guide. Springer Silvy N. J. (ed.) 2012. The Wildlife Techniques Manual (Volume 1: Research/ Volume 2: Management). John Hopkins University Press	
Supplementary references	Krausman P. R., Cain J. W. (eds.) 2013. Wildlife Management and Conservation: Contemporary Principles and Practices Fryxell J. M., Sinclair A. R. E., Caughley G. 2014. Wildlife Ecology, Conservation, and Management. Wiley Blackwell	
Organisational unit conducting the course	Faculty of Civil Engineering and Environmental Sciences	**Date of issuing the programme**
Author of the programme	Dan Wołkowycki, PhD	01.03.2020

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