Faculty of Foresty in Hajnowka					
Study programme:	**Forestry**	*Degree lev*	*full-time*	**I-engineering studies degree**	
Specialization		*Diploma path:*		**-**	
Module name:	**Ecology**			**L2014**	
Module type:	*obligatory/elective*	*Semester: II*	*ECTS* **3**	*Module ID:*	
No. of hrs in semester:	*L - 15*	*C -*	*LC-*	*P- 20*	*SW- 10*	*S-*
Prerequisites:	*Complete with prerequisites or "-"*	**Botany, Physiology**			
Teaching methods:	*lecture, project.*	*Assessment:*	*Evaluation must be relevant to the intended learning outcomes*		
		lecture - written exam; project - completion, presentation and discussion of the project.			
Aims and objectives:	*To familiarize students with the organization and functioning of ecological systems in the environment. Learn how to research and analysis of environmentalchanges caused by human activity.*				
Module content:	*Principles of operation and processes nature. Ecological phenomena. The relationship between components of ecological systems. The functioning unitis of living organisms in the environment. Anthropopression as factor disturbing the balanse of ecosystems.*				

Learning outcomes	*Write min. 4, max. 8 learning outcomes in the following order: knowledge - skills - competences. Each learning outcome must be verifiable.*	*Relevance to the programme learning outcomes*	
LO1	*lists key events in the environment*	*L1_W1, L1_W06*	
LO2	*classifies and discusses the funcioning of living organism at diffirent levels of organization.*	*L1_W06, L1_W07, L1_W012*	
LO3	*Performs measurements of parameters related to the functioning of ecosystems.*	*L1_W05, L1_U02*	
LO4	*compile and analyze the results of simple experiments of ecological*	*L1_U01, L1_U04, L1_U013*	
LO5	*able to develop a fundation of ecological protection in forestry.*	*L1_K07, L1_K08*	
LO6	*able to work in team.*	*L1_K05*	
LO7			
LO8			
	lecture attendance	*15x1h*	*15*
	participation in classes, laboratory classes, etc.	*10x2h*	*20*
	preparation for classes, projects.	*10x1h*	*10*

student workload	*work on projects*	*10h*	*10*
	participation in student-teacher sessions related to the project	*10x1h*	*10*
	implementation of project tasks	*5h*	*5*
	preparation for and participation in exams/tests	*10h +2h*	*12*
		TOTAL:	*82*
quantitative indicators	*Student workload - activities that require direct teacher participation*	*57*	*ECTS*
			2
	Student workload - practical skills activities	*72*	*3*

basic references:	*1.Odum E., 1996. Podstawy ekologii. PWN. Warszawa.* *2. Mackenzie A., Ball A., S., Virdee S. R.,2002. Ekologia. Krótkie wykłady. PWN, Warszawa.* *3. Krebs J., 1999. Ekologia. PWN, Warszawa.*
supplementary references:	*1. Kurnatowska A. (red.), 1997. Ekologia. Jej związki z różnymi dziedzinami wiedzy. PWN, Warszawa.* *2. Laskowski R., Migula P., 2004. Ekotoksykologia. Od komórki do ekosystemu. PWRiL, Warszawa.* *3. Stawicki J., Szymczak-Piątek M., Wieczorek J., 2006. Wybrane zagadnienia ekologiczne. Wyd. SGGW. Warszawa*

learning outcomes	*methods of assessing learning outcomes*	*type of class (if more than one) where the outcomes are assessed*
LO1	*evaluating the student's reports and preparation for the classes*	*L, P*
LO2	*evaluating the student's reports and preparation for the classes , tests on lecture content*	*P,L*
LO3	*evaluating the student's reports, tests on lecture content*	*P*
LO4	*evaluating the student's reports, tests on lecture content*	*P*
LO5	*evaluating the student's reports and performance in classes*	*P*
LO6	*discussion of the student's reports, evaluation of the student's performance in classes*	*P,SW*
LO7		
LO8		

Department:	*ZWL PB*	*Group instructors:*	*dr iż. Halina Chomutowska*
Date:	*18.02.2012*	*Coordinator:*	*dr iż. Halina Chomutowska*