CLASS CARD Basics of ecology and environmental protection

Basic classes	Code in the study plan	ECTS
Nazwa zajęć	TR/1/PP/PEO	4
Basics of Ecology and		
Environmental Protection		

Education profile	
	practical
Faculty and field of study	Faculty of Physical Education
	/ Tourism and Recreation
Studies program in which the	
subject is realized	
Professor's name	Wojciech Szeligiewicz
Level of studies (eg. bachelor,	bachelor
master)	
Study year and semester	
	1st year, 1st sem
Language	English
Method of realization	stationary
(stationary/ distance learning)	
Lectures/classes hours	15/30
Form of passing classes	Test and presentations
Type of subject	obligatory
(obligatory/ facultative)	
Prerequisites	no prerequisites

DETAILED INFORMATION

Course aims and objectives

C1	Acquisition of basic knowledge of Ecology and Environmental Protection
C2	Acquiring the ability to seek and use environmental information in practice

C3

LEARNING OUTCOMES IN KNOWLEDGE, SKILLS AND SOCIAL COMPETENCES FOR CLASSES

Learning outcome	Subject's learning outcomes		
KNOWLEDGE			
K_W05	P_W01		
	Has advanced knowledge of factors affecting the human body, including		
	P_W02		
K_W06	Knows the basic concepts of ecology and environmental protection		
	P_W03		
	Knows the basic relationships between organisms, including the human organism, and the environment		
	P_W04		
	Knows the functioning of basic ecological systems		
	P_W05 He knows the basic threats that man can pose to the environment, and from the environment to man		
SKILLS			
K_U01	P_U01		
	Able to initiate activities related to tourism and recreational activities in terms of conditions, needs and capabilities of the participants		

SOCIAL COMPETENCES		
K_K03	P_K01 He is ready to share his knowledge and skills	

SUBJECT PROGRAM CONTENT DIVISION BY FORMS OF IMPLEMENTATION

		Reference to subject-
FORM OF CLASSES – LECTURE - subject		specific learning
		outcomes
W_1-2	Practical familiarization of students with the principles and methods of work ensuring occupational safety and health when performing activities in the course with and/or without technical devices, equipment.	P_W01, P_W02, P_W03, P_W04, P_W05
	The concept and domain of ecology. The concept of environment. The environment of the University: Bielański Forest Nature Reserve	
W_3-6	Life on Earth in the face of the surrounding Universe: factors acting on the part of the Cosmos, mechanisms enabling life to persist	P_W01, P_W02, P_W03, P_W04, P_W05
W_7-8	Characteristics of terrestrial and aquatic environments. Adaptations of organisms	P_W01, P_W02, P_W03, P_W04, P_W05
W_9-10	Population, community, ecosystem, landscape, biosphere. Limiting factors	P_W01, P_W02, P_W03, P_W04, P_W05
W_11-15	Biogeographic patterns, biomes	P_W04

FORM OF CLASSES – CLASSES – subject		Reference to subject- specific learning outcomes
ĆW_1-2	Ecological tour	P_W01, P_W02, P_W03, P_W04, P_W05, P_U01, P_K01
ĆW_3-6	Examples of inter- and intra- species interactions. Global and local threats to the environment, their causes, effects, prevention, links to tourism - including the greenhouse effect, the ozone hole. Examples of interactions between organisms and the environment on an ecological time scale.	P_W01, P_W02, P_W03, P_W04, P_W05, P_U01, P_K01
ĆW_7-10	Global and local environmental hazards, their causes, effects, prevention, links to tourism - acid rain, smog, among others. C.d. examples of interactions between organisms and the environment on an ecological time scale.	P_W01, P_W02, P_W03, P_W04, P_W05, P_U01, P_K01
ĆW_11-15	Global and local threats to the environment, their causes, effects, prevention, links to tourism - including biodiversity, soils: erosion, salinization, acidification. Examples of human impacts on selected communities.	P_W01, P_W02, P_W03, P_W04, P_W05, P_U01, P_K01
ĆW_16-20	The problem of water and air: global and local threats to the environment, their causes, effects, prevention, links with tourism. Further examples of human impacts on selected communitis	P_W01, P_W02, P_W03, P_W04, P_W05, P_U01, P_K01

ĆW_21-25	Wastewater treatment and water treatment: practice in tourist and recreational resorts. Structure and functioning of selected ecosystems. Effects of human interactions with the environment	P_W01, P_W02, P_W03, P_W04, P_W05, P_U01, P_K01
ĆW_26-30	Structure and functioning of aquatic ecosystems. Eutrophication, blooms of reservoirs. Relationship to tourism and recreation.	P_W01, P_W02, P_W03, P_W04, P_W05, P_U01, P_K01

PLANNED METHODS/FORMS/TEACHING MEANS

Program content	Teaching methods/forms
W_1-15	
	Auditorium
ĆW_1-30	
	case study, projects, discussion
Teaching resources:	
computer, multimedia projector	

METHODS OF VERIFYING THE EXPECTED LEARNING OUTCOMES ACHIEVED BY THE STUDENT

Learning outcomes for classes	Assessment methods
P_W01, P_W02, P_W03, P_W04, P_W05	Exam: oral or written test
P_W01, P_W02, P_W03, P_W04, P_W05, P_U01, P_K01	project presentations

CONDITIONS FOR PASSING CLASSES:

Credit for presentation, attendance and activity at classes

Written exam - one-choice test, pass mark - 50%

SAMPLE ASSESSMENT/EXAMINATION TOPICS

The flow of matter and energy in a community occurs through interactions of the following types

(a) Competition

b) Commensalism

(c) Predator-prey

ENGLISH BIBLIOGRAPHY

Basic	 Chapman J.L., Reiss M.J. 2009. Ecology. Principles and Applications. Second edition. Cambridge University Press, Cambridge Miller G.,T. Spoolman S.E., 2009. Essentials of Ecology (fifth edition), Brooks/Cole Beeby A., Brennan A-M., 2008. First ecology. Ecological principles and environmental issues (third edition), Oxford
Additional	 Campbell N.A., Reece J.B. 2005. Biology. International Edition. Pearson Education Inc. San Francisco, Boston, New York Closs G., Downe B., Boulton A., 2010. Freshwater ecology. A scientific introduction. Blackwell, Malden Garrison T. 2007. Oceanography. An invitation to marine science

	(sixth edition). Thomson, Brooks Cole
4.	Henderson-Sellers B., Markland
	H.R. 1987. Decaying lakes. John
	Wiley&Sons, Chichester
5.	Lampert W., Sommer U. 2007.
	Limnology (2 nd edition), Oxford
	University Press
6.	Moss B. 2010. Ecology of
	freshwaters. A view for the twenty-
	first century. Wiley-Blackwell
7.	Pourriot R. Capblancq J., Champ P.,
	Meyer J.A. 1982. Ecologie du
	plankton des eaux continentals.
	Masson, Paris
8.	Lafforgue M., Szeligiewicz W., Devaux
	J., Poulin M. 1995. Selective
	mechanisms controlling algal
	succession in Aydat Lake. Water
	Science and Technology

SELF STUDY

Full-time studies		
Number of hours to	ECTS	Type of activity
complete the activity		
45	1,8	Lectures / classes
13	0,52	Familiarization with the indicated literature
13	0,52	Preparation of presentation and description
9	0,36	Studying learning materials
20	0,8	Preparation for a credit/test
100	4	Total hours / number of points ECTS

Number of ECTS points that a student obtains in classes developing practical skills: 3

Author of the class card:	Name, surname and email
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