	BZ2n_002
Field of study	Animal Behaviour
Name of Module	*Behavioural and physiological animals' adaptation to environment*
	Behawioralna i fizjologiczna adaptacja zwierząt do środowiska
Language of Module	English
Type of Module (obligatory/optional)	optional
Level of Module	*2 non-stationary studies*
Year of study	*1*
Semester	*1*
ECTS number including contact/ non-contact	*4* *1,2/2,8*
Last name and name of responsible lecturer – scientific degree	Monika Budzyńska – dr hab.
Accompanying persons	-
Unit offering the module	Department of Animal Ethology and wildlife Management
Aim of Module	The aim of the module is to get knowledge about adaptation forms conducted on the way of changes in behaviour and physiology that can be found in animal world in the aspect: cause-effect as well as to realize the relationship between conditions made by human and adaptive possibilities of animals
Learning Outcomes	Knowledge:
	K1. Student explains the key function of behavioural and physiological traits in animal adaptation
	K2. Student understands relationship between environment conditions and adaptive possibilities of domesticated and wild animals
	Skills:
	S1. Student is able to prepare and present the project dealing with some animals' behaviour strategies that allowing them to adapt to the environment
	Social competences:
	SC1. Student understands the need of self-learning and using available sources of references to update their knowledge

<table>
<tr><td>Ways of verification and forms of documentation of learning outcomes</td><td>Criteria used during assessment:
1) Student shows satisfactory (3.0) level of knowledge or skills, when receives from 51 to 60% of sum of points describing maximal level of knowledge or skills in particular course
2) Student shows satisfactory plus (3.5) level of knowledge or skills, when receives from 61 to 70% of sum of points describing maximal level of knowledge or skills in particular course
3) Student shows good (4.0) level of knowledge or skills, when receives from 71 to 80% of sum of points describing maximal level of knowledge or skills in particular course
4) Student shows good plus (4.5) level of knowledge or skills, when receives from 81 to 90% of sum of points describing maximal level of knowledge or skills in particular course
5) Student shows very good (5.0) level of knowledge or skills, when receives more than 91% of sum of points describing maximal level of knowledge or skills in particular course
Knowledge: K1. K2.assessment of writing test and exam

Skills: U1. presentation and assessment of student project

Social competences: SC1. activity during classes, presentation and assessment of student project</td></tr>
<tr><td>First and additional requirements</td><td>-</td></tr>
<tr><td>Description of module – around 100 words</td><td>The issues connected with behavioural and physiological mechanisms of animals' adaptation as a response to changes in their environment are involved in this module. The importance of differences in plasticity of behaviour in domesticated and wild animals will be underlined.The module content includes mechanisms of behavioural and physiological adaptation of animals living in different climate conditions, in land and water environment as well as in the environment made by a man. Adaptive functions of innate and learned behaviour, styles of animals' response in stressful situation as well as the importance of physical and behavioural comfort in their management and use are included.</td></tr>
<tr><td>Recommended list of references or obligatory books</td><td>Kaleta T.: Zachowanie się zwierząt: zarys problematyki. SGGW Warszawa 2014 (rozdz. behawior a przystosowanie do otoczenia)

Schmidt-Nielsen K.: Fizjologia zwierząt. Adaptacja do środowiska. PWN Warszawa 2008

Sotowska-Brochocka J.: Fizjologia zwierząt. Zagadnienia wybrane. Wyd. UW Warszawa 2001

Trojan M.: Zachowanie się zwierząt. Przegląd wybranych zagadnień z zakresu psychologii porównawczej. VIZJA PRESS Warszawa 2007</td></tr>
<tr><td>Planed teaching forms/actions/methods</td><td>Lecture, practical, writing test, preparing and computer presentating student project</td></tr>
<tr><td>ECTS Credits</td><td>
<table>
<tr><th colspan="3">Contact</th></tr>
<tr><td></td><td>hours</td><td>ECTS
25hours=1 ECTS</td></tr>
<tr><td>lectures</td><td>9</td><td>0,36</td></tr>
<tr><td>auditorium practicals</td><td>3</td><td>0,12</td></tr>
<tr><td>laboratory practicals</td><td>6</td><td>0,24</td></tr>
<tr><td>consultations</td><td>10</td><td>0,4</td></tr>
<tr><td>exam</td><td>2</td><td>0,08</td></tr>
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	Total contact	*30*	*1,2*
	Non-contact		
	Preparing for practicals	*15*	*0,6*
	Preparing the project	*25*	*1,0*
	Preparing for exam	*30*	*1,2*
	Total non-contact	*70*	*2,8*
Work connected with classes involving direct participation of teacher	Participation in lectures	9	0,36
	Participation in auditorium practicals	*3*	*0,12*
	Participation in laboratory practicals	*6*	*0,24*
	consultations	*10*	*0,4*
	exam	*2*	*0,08*
	TOTAL with direct teacher involvement	*30*	*1,2*
Work connected with practical classes	Participation in laboratory practicals	*6*	*0,24*
	Preparing for practicals	*15*	*0,6*
	Preparing the project	*25*	*1,0*
	Preparing for exam and participation	*32*	*1,28*
	Total practical	*78*	*3,12*

Detailed programme of lectures and practicals with regard to number of hours			
	lectures: 9 *h*		h
	1.	Module description	0,5
	2.	The term of adaptation, its forms and importance for animals	1
	3.	Influence of anthropogenic environmental changes on behaviour of vertebrates	1
	4.	Stress and neuroendocrine adaptation	2
	5.	Adaptation and individual differences In animal behaviour	2,5
	6.	Practical use of knowledge about adaptive mechanisms	2
	(L – laboratory, A – auditory) (total number of practicals:9 L –6 , A -3)		
	1.	Choosing of Project. Rules of preparing and assessment of projects. Sources and ways of choosing the content	0,5 -A
	2.	Levels of interactions: physiology - behaviour	2 - A
	3.	Adaptations of animals to different environmental conditions	1- L
	4.	Adaptation of domesticated and wild animals to environment made by a man	2 - L
	5.	Adaptive mechanisms in animal feeding	1 - L
	6.	Predator – prey: animal adaptations	2 - L
	7.	test	0,5- A

Degree of field learning outcomes achievement:	field learning outcomes and symbols „+” „++” „+++” describing the degree involving relationship between learning outcomes and the module BZ2_K04++ BZ2_K10++ BZ2_S03++ BZ2_S07++ BZ2_SC01+