Course name:

CARP CULTURE

ECTS	**3**
Course status	**complementary**
Course final assessement/evaluation of outcomes	**credit unrated**
Prerequisites	**knowledge and skills in animal husbandry**

Main field of study:

ZOOTECHNICS

Profile of study	**General-academic**
The code of studies (education level)	**SI (bachelor)**
Semester of studies	**summer**
Language of instruction	**English**

Course offered by:

Name of faculty offering the course	**Faculty of Animal Sciences**
Name of department offering the course	**Department of Nutrition, Biotechnology of Animals and Fisheries**
Course coordinator	**Assoc. Professor Jarosław Chyb**

Learning outcomes of the course:

Symbol of outcome	Description of learning outcome	Reference to	
		main field of study outcomes	discipline#
KNOWLEDGE – student knows and/or understands:			
_W1	systematic groups of animals, fish class biology, evolutionary adaptation to the environment; functioning of ecosystems, principles of nature and environmental protection	ZOO1_W01	RZ
_W2	principles and techniques of fish nutrition, production methods and evaluation of feeds	ZOO1_W09	RZ
_W3	basic species, fish breeds, has detailed knowledge of their breeding, production technology and environmental requirements	ZOO1_W11	RZ
_W4	fish species occurring in Poland, their importance for fisheries management and prospects for their protection, knows the techniques and methods of fishing and the	ZOO1_W16	RZ
_W5	basic species and strains of fish, detailed principles of their culture, breeding, production technology and environmental requirements	ZOO1_W18	RZ
SKILLS – student is able to:			
_U1	characterize processes and relationships that occur inside and between groups of organisms in the pond	ZOO1_U01	RZ
_U2	assess animal welfare, identify basic disease entities and take preventive measures, apply zootechnical prevention, plan and organize a cycle of fish	ZOO1_U10	RZ
_U3	use the right equipment, depending on the type of use; apply health and safety rules in handling fish	ZOO1_U15	RZ
SOCIAL COMPETENCE- student is ready to:			
_K1	compliance with the principles of professional ethics, taking responsibility for animal welfare as well as shaping and condition of the natural environment	ZOO1_K04	RZ
_K2	thinking and acting in an entrepreneurial way, presenting an active attitude to create individual entrepreneurship	ZOO1_K08	RZ

_K3	taking care of own safety and the safety of persons participating in a given undertaking, as well as care for one's own health and physical fitness	ZOO1_K10	RZ

Teaching contents:

Lectures		**15**	**hours**
Topics of the lectures	Characteristic of carp farming. Characteristic of carp ponds Methods for increasing the productivity of carp ponds. Principles of carp farming. Planning of the pond stocking. Farming cycles. Methods of spawning induction Control of the hatching process. Technology of fry rearing Carp feeding. Wintering and health control Annual work cycle on a carp farm		
Accomplished learning outcomes	*_W1, _W2, _K1, _K2*		
Verification methods, rules and criteria of outcome assessment	*Test in the form of a test covering issues discussed during lectures; a positive grade should be given for at least 55% of the correct answers to the questions asked. The share of the lecture grade in the final grade is 50%.*		

Classes		**15**	**hours**
Topics of the classes	Pond vegetation. Negative impact of emergent plants on the conditions of fish in ponds Plankton and benthos as the main source of natural food for carp Fish pests in carp ponds. Changes of oxygen content in pond water. Carp anatomy Control catch of fish. Fish harvesting equipment Conditions of fish transport Hormonally controlled reproduction of carp Schedule of work on a carp farm.		
Accomplished learning outcomes	*…._U1, …._U2, …._U3*		
Verification methods, rules and criteria of outcome assessment	*Test in the form of a test covering issues discussed during classes; a positive grade should be given for at least 55% of the correct answers to the questions asked. The share of the laboratory classes grade in the final grade is 50%.*		

Seminars		**…**	**hours**
Topics of the seminars			
Accomplished learning outcomes			
Verification methods, rules and criteria of outcome assessment			

References:

Basic	*1. Opuszyński K. 1987. Fresh-water pond ecosytem managed under a moderate European climate. Managed Auqatic Ecosystems (ed. R.G. Michael), 63-91.* *2. Billard R. 1999. Carp – Biology and culture. Springer, New York* *3. Horvath L., Tamas G., Seagrave C. 2002. Carp and pond fish culture. Fishing New Books. Blackwell Science*
Supplementary	*1. Jhingran V.G., Pullin R.S.V. 1988.A hatchery manual for the common, Chinese and Indian major carps. Asian development Bank, ICLARM, Manila, Philippines.* *2. Podhorec P., Gosiewski G., Ben Ammar I., Sokolowska-Mikolajczyk M., Chyb J., Milla S., Boryshpolets S., Rodina M., Linhartova Z., Biro D., Stejskal V., Kouril J. (2017). The effect of GnRHa with or without dopamine inhibitor on reproductive hormone levels and sperm quality in tench Tinca tinca. Aquaculture, 470, 91-94*

Structure of learning outcomes:

Discipline: # (*provide appripriate symbol*)				*3*	ECTS**
Discipline: # (*provide appripriate symbol - if the course relates to more than one academic discipline*)				*…*	ECTS**
Structure of student activities:					
Contact hours		35	hours	1,5	ECTS**
including:	lectures	15	hours		
	classes and seminars	15	hours		
	consultations	4	hours		
	participation in research	…	hours		
	mandatory trainerships	…	hours		
	participation in examinations	1	hours		
e-learning		…	hours	…	ECTS**
student own work		35	hours	1,5	ECTS**

Syllabus valid from the academic year 2021/2022

*** where 10 hours of classes = 1 ECTC (in case of 15 h → 2 ECTS)**

** stated with an accuracy to 0.1 ECTS, where 1 ECTS = 25 - 30 hours of classes

academic discipline code: RZ - animal science and fishery, PB - biological sciences, etc.