Module code	M_WE_SEM10 PREW 2 2019-2020
Field of study	Veterinary medicine
Module name, also the name in English	Veterinary Prevention 2
	Veterinary Prevention 2
Language of instruction	English
Module type	Obligatory
Level of studies	Long-cycle master's degree studies
Form of study	Full-time
Year of study in the field of study	V
Semester of study in the field of study	X
ECTS credits, divided into contact/non-contact hours	3 (1.9/1.1)
Academic title/degree, name of the person responsible for the module	Prof. dr hab. Renata Urban-Chmiel
Unit teaching the module	Department of Veterinary Prevention and Avian Diseases
Module objective	Education in this area aims to acquire the skills to evaluate health of animal populations diverse in species and production based on epidemiological and production indicators. Evaluate the importance of environmental factors on health, including skills to identify and eliminate harmful factors to animals. Plan and carry out activities to fight threats and improve herd health and performance. Prepare prevention programs independently and eliminate threats from physical, chemical and biological factors to animals population. Evaluate the effectiveness of conducted prevention programs.
The learning outcomes for the module include a description of the knowledge, skills and social competences that the student will gain after completing the module.	Knowledge:
	K1. The student has increased knowledge of terminology used in veterinary prevention and terms directly relevant to practical use of knowledge in developing prevention programs.
	K2. The student has knowledge of the principles of developing and implementing prevention programs to control herd diseases, research techniques and tools used in immunological research, and basic technologies using scientific developments.
	Skills:
	S1. The student is able to retrieve and implement with understanding the necessary data about animal prevention from a variety of sources and in a different forms appropriate for veterinary prevention.
	S2. The student interprets law regulations regarding the prevention of infectious diseases and is able to determine the basic requirements of quarantine, animal adaptation and demonstrate knowledge of the principles of deratization, disinsection and disinfection.
	S3. The student develops and implements prevention programs for specific species of productive animals .
	Social competences:

	C1. The student can interact and work in a group taking different roles and responsibility for decisions regarding the delivery of herd health services.
	C2. The student is aware of the need for targeted further training and self-improvement in his/her profession in the development and implementation of preventive programs.
Prerequisites and additional requirements	Credit for Veterinary Prevention 1 module
Module program content	**Lectures** Main causes of economic losses in different animal production sectors. Characteristic of stressful environmental factors with their effects on the health, immune status and farm animals production. Principles of the utilisation and rational use of antimicrobials in the treatment and prevention of diseases in farm and companion animals based on current legislation. Characteristic of alternative methods of infection control to chemotherapeutics in animals with special emphasis on farm animals . Characteristics of the prevention of selected farm animals diseases (lameness, metabolic disorders, calf diarrhea, respiratory disease in cattle) in economic aspects of whole herd's health . Selected issues concerning biosecurity at animal farms - sanitation, risk factors on the basis of currently binding law regulations. **Practical classes** Characteristic of farm animals environment as animals health risk factors. Environment impact on disease onset; Characteristics of preparations used for active and passive immunization in animals. Prevention of infectious diseases. Principles of developing and implementing prevention programs in farm animals herds. Prevention in dairy and beef cattle herds. Prevention in hog herds. Veterinary prevention in flock of sheep and goats. Utilization of feces as well as carcasses and solid waste based on current legal regulations. Biosecurity basic principles - development, monitoring and control regarding law regulations (deratization, disinsection, disinfection, quarantine) . Border Veterinary Prevention- Sanitary border protection: international and national sanitary regulations for infectious diseases, mandatory and recommended vaccination - prevention at global, community, union level, - national level, local structures and animal production units.

List of core and supplementary literature	**Required literature** : 1 Divers T.J., Peek S.F. Disease of dairy cattle Vol. 1,2 Elsevier Urban&Partner **Supplementary literature** 1. Philpot W.N, Nickerson S.C., Malinowski E. Winning the Fight Against Mastitis. Westfalia Polska 2. Cockcroft P. Bovine medicine. Wiley Blackwell, 2015. 3.Matthews J. Diseases of the goat. Third Ed. WIley-Blackwell, 2009 4 Radostits O.M., Herd Health Saunders Company, 2001. Current Veterinary Therapy sections, 2011-2015. 5 Greenough P.R. Lameness in cattle 2007 Elsevier . 7. Scientific articles
Planned forms/activities/teaching methods	As a part of the courses, students have the opportunity to participate in classes conducted in the form of lectures and seminars. In addition, they complete some of the issues in the form of group work (e.g. . the examination of colostrum quality, the evaluation of products for udder and hoof care as well as the participation in field practicals in cattle farm.

| Verification methods and ways of documenting the achieved learning outcomes. | Skills: Verification of achieved effects U 01-03 by evaluating abilities to use colostrum quality measurements, participating and taking up preventive activities during the field trips (01-03). Verification of knowledge about applying hoof and udder care products.
 Verification of competency (01-02) based on class participation and semester credit.
 Verification of knowledge (01-02), competence (01-02) and skills (03) of developing prevention programs based on credit and/or written exam.
 Verification of knowledge (01-02), competence (01-02) and skills (03) of developing prevention programs based on credit and/or written exam.
 Receiving at least good grade (4) from written test, with essay type of questions, after IX and X semester can be used as a basis for exemption from the final exam . In this case, the final grade is the average of credits received after IX and X semester.
 Those who received grade <4 as a credit after semester IX, will write only a final exam after X semester, which is a requirement to pass the subject.
 In order to be admitted to pass semester X and/or final exam, the student must attend at least 70% of classes, including practical classes, which confirms, for example, skills to determine colostrum quality.
 A student may have one absence that does not have to be made up for, but other absences must be credited by the lecturer. The form of credit for an absence is an oral answer.
 The exam is written and includes one essay question from semester IX and 3 essay questions from semester X. As part of the questions from semester X, students are required to present prevention program for a selected technological group or animal species (cattle, sheep, goats, pigs, horses) as an prove of skills acquisition (one essay question). To pass an exam it is required to be able to develop above mentioned prevention program
 Scale of grades:
 0 - 50% - unsatisfactory
 51 - 60% - sufficient
 61 - 69% - sufficient plus
 70 - 80% - good
 81 - 90% - good plus
 91 - 100% - very good |

ECTS credits		
	Form of course **ECTS credits**	**Number of hours**
		Contact hours
	Lectures 0.6	15
	Recitation classes	
	Laboratory classes and field practice 1.2	30
	Final exam 0.1	3
		Number of hours **Non-contact hours**
	Preparation for 0.35 laboratory classes	10
	Preparation for 0.15 recitation classes	4
	Preparation for 0.5 tests and exams	15
	Reading literature 0.1	4
	TOTAL: **3.0**	**81**
The workload of activities that requires direct participation of an academic teacher	participation in lectures – 15 hours; in practical classes – 30 hours; exams – 3 hours, consultations – total 48 hours, 1.9 ECTS	
Relation of module learning outcomes to course learning outcomes.	Module learning outcome code - course learning outcome code K1. - B.W15+, B.W20+++. K2- B.W15++, B.W20+++. S1. - B.U20. +++, B.U21.+++ S2.- B.U20. +, B.U21.++ S3.- B.U20. +++, B.U21.+++ S4.- B.U20. +++, B.U21.+++ C1. - K1)++, K8)+++, K11)++. C2.- K1)++, K8)+++, K11)+++	
Elements and values affecting the final grade	Written test from semester IX - 40% If you receive at least a grade 4 in the semester IX IX - written test from semester X - 60% Final exam (if you receive at least grade <4 from semester IX) - 100%	