



SZKOŁA GŁÓWNA
GOSPODARSTWA
WIEJSKIEGO

Feed hygiene

Educational subject description sheet

Basic information

Field of study Veterinary Medicine	Didactic cycle 2023/24
Speciality -	Subject code WETFVMS_D.540.01720.23
Organizational unit Faculty of Veterinary Medicine	Lecture languages english
Study level long-cycle	Mandatory Obligatory subjects
Study form full-time studies	Block Major subjects
Education profile General academic	Disciplines Veterinary medicine
Coordinator	Joanna Zarzyńska
Teacher	Joanna Zarzyńska
Period Semester 7	Examination Pass with grade
	Activities and hours Lecture: 20 Field exercises: 10
	Number of ECTS points 2

Goals

Code	Goal
C1	The objective of the module is to prepare students for work in the veterinary inspection, in the field of feed safety. Students will learn about the hygienic aspects of feed production, feed quality and safety systems in feed chain, feed law, sanitary and veterinary inspection principles (official veterinary control), as well as test methods and hygienic assessment of feeds.

Entry requirements

Microbiology 2, Biochemistry 2, Animal nutrition and feeding, Veterinary pharmacology 2, Pathomorphology 2

Subject's learning outcomes

Code	Outcomes in terms of	Effects	Examination methods
Knowledge - Student knows and understands:			
W1	the principles of feed chain safety	B.W16, B.W17, B.W20	Written credit, Essay
W2	the correct hygiene conditions in feed production	B.W17, B.W20	Written credit, Essay
W3	the relevant legislation governing official veterinary inspection in feed sector	B.W21	Written credit, Essay
W4	the procedures related to HACCP— Hazard Analysis and Critical Control Points System	B.W18	Written credit
W5	the principles of feed law	B.W21	Written credit
W6	laboratory techniques for standard testing of feed quality	B.W6	Written credit
W7	the rules of feed sampling	B.W4	Written credit
Skills - Student can:			
U1	interpret the conditions in hygiene of feed, as well as feed safety,	B.U18	Written credit, Essay
U2	logically analyse appropriate legal acts regulating veterinary inspection over feed safety	B.U22, B.U25	Written credit, Essay
U3	creatively think about quality control systems and pest control in feed sector	B.U22	Written credit, Essay
U4	properly analyse and interpret the results of laboratory tests (quality of feed)	B.U18	Written credit, Essay
Social competences - Student is ready to:			
K1	cooperation with representatives of other professions in the field of feed hygiene and safety	KS.11	Essay
K2	communication and cooperation with entrepreneurs in the feed production sector	KS.11, KS.5	Essay
K3	search for actual sources of knowledge and lifelong learning	KS.4, KS.8	Written credit, Essay
K4	use food law acts	KS.4, KS.8	Written credit, Essay
K5	critical assessment of knowledge in the field of feed hygiene	KS.7	Written credit, Essay
K6	share own knowledge in the field of feed hygiene and to use the knowledge of others	KS.9	Written credit, Essay

Study content

No.	Course content	Subject's learning outcomes	Activities
1.	1. European feed law. National control plans - principles of official inspections of feed (2h) 3. Feed additives and materials, EU law regulations (2h). 4. Physical, chemical and biological hazards related to feed safety, which may affect human and animal health (8h) 5. GMO in animal feeding (2h). 6. Pest control (2h) 7. Systems of quality assurance in feed chain. Veterinary inspection of feed manufacturing plants (2h) 9. Sampling and methods of laboratory testing of feedingstuffs (2h) The content of the lectures supplements the content of field exercises.	W1, W2, W3, W4, W5, W6, W7, U2, U3, U4, K3, K4, K5	Lecture
2.	visiting the factory producing feed/ feed additives (feed quality & safety). Visiting the reference laboratory (official veterinary control)	W2, W3, W6, W7, U1, U4, K1, K2, K5, K6	Field exercises

Course advanced

Activities	Methods of conducting classes
Lecture	Lecture, E-learning - lecture part, Analysis of source materials, Teamwork
Field exercises	Discussion, Interpreting the results, Observation, Field observations

Activities	Examination method	Percentage
Lecture	Essay	70%
Lecture	Written credit	15%
Field exercises	Written credit	15%

Activities	Credit conditions
Lecture	There is one final written test covering all theoretical content of lectures. Formula of test (questions of mix character, multiple choice, short open), 30 que/1 point per que. Students are elaborating essay covering current issues of feed hygiene - work in pairs. To pass the course, it is necessary to obtain at least 60% of the total number of points from the written test. The test terms 1st and 2nd are hold in the same form. In case of unforeseen, unusual circumstances mandatory remote teaching and remote assessment methods might be adopted.
Field exercises	Within the final written test part covering all theoretical content of field exercises

Literature

Obligatory

1. EUROPEAN COMMISSION HEALTH & CONSUMER PROTECTION DIRECTORATE-GENERAL. Overall summary report on the results of official controls in the field of animal nutrition carried out by Member States
2. General Veterinary Inspectorate and Ministry of Agriculture and Rural Development: Results of the National Veterinary Residue Control Plan in Live Animals and Animal Products in Poland <http://www.wetgiw.gov.pl/>.
3. The current legislation of the European Union related to feed (EUR – lex- on line)

Optional

1. review articles in eng feed hygiene
2. Federation of Veterinarians of Europe. Food safety. The stable to table approach. <http://www.fve.org>
3. <https://www.food.gov.uk/business-guidance/animal-feed-legislation>
4. <https://www.efsa.europa.eu/en/applications/feedadditives/regulationsandguidance>
5. All about feed web site

Calculation of ECTS points

Activity form	Activity hours*
Lecture	20
Field exercises	10
Conducting literature research	5
Preparation for the exam	15
Self-study on the content covered in class	5
Preparation of a paper	5
Student workload	Hours 60
Number of ECTS points	ECTS 2

* hour means 45 minutes

Effects

Code	Content
KS.4	Absolwent jest gotów do korzystania z obiektywnych źródeł informacji
KS.5	Absolwent jest gotów do formułowania wniosków z własnych pomiarów lub obserwacji
KS.7	Absolwent jest gotów do rzetelnej samooceny, formułowania konstruktywnej krytyki w zakresie praktyki weterynaryjnej, przyjmowania krytyki prezentowanych przez siebie rozwiązań, ustosunkowywania się do niej w sposób jasny i rzeczowy, także przy użyciu argumentów odwołujących się do dostępnego dorobku naukowego w dyscyplinie
KS.8	Absolwent jest gotów do pogłębiania wiedzy i doskonalenia umiejętności
KS.9	Absolwent jest gotów do komunikowania się ze współpracownikami i dzielenia się wiedzą
KS.11	Absolwent jest gotów do współpracy z przedstawicielami innych zawodów w zakresie ochrony zdrowia publicznego
B.U18	Absolwent potrafi ocenić jakość produktów pochodzenia zwierzęcego
B.U22	Absolwent potrafi oszacować ryzyko wystąpienia zagrożeń chemicznych i biologicznych w żywności pochodzenia zwierzęcego
B.U25	Absolwent potrafi ocenić ryzyko skażenia, zakażenia krzyżowego i akumulacji czynników chorobotwórczych w obiektach weterynaryjnych i w środowisku przyrodniczym oraz wprowadzić zalecenia minimalizujące to ryzyko
B.W4	Absolwent zna i rozumie zasady postępowania diagnostycznego, z uwzględnieniem diagnostyki różnicowej, oraz postępowania terapeutycznego
B.W6	Absolwent zna i rozumie sposób postępowania z danymi klinicznymi i wynikami badań laboratoryjnych i dodatkowych
B.W16	Absolwent zna i rozumie zasady funkcjonowania Inspekcji Weterynaryjnej, także w aspekcie zdrowia publicznego
B.W17	Absolwent zna i rozumie zasady ochrony zdrowia konsumenta zapewniane przez właściwy nadzór nad produkcją środków spożywczych pochodzenia zwierzęcego
B.W18	Absolwent zna i rozumie systemy kontroli zgodne z procedurami HACCP (Hazard Analysis and Critical Control Points) - Systemu Analizy Zagrożeń i Krytycznych Punktów Kontroli
B.W20	Absolwent zna i rozumie warunki higieny i technologii produkcji zwierzęcej
B.W21	Absolwent zna i rozumie zasady prawa żywnościowego