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| Module title: | Feed hygiene | ECTS | 2 |
| Polish translation: | Higiena pasz | | |
| Course: | Veterinary Medicine | | |

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| Module language: English | | Stage: JM-FVM | |
| Form of studies: <input checked="" type="checkbox"/> intramural <input type="checkbox"/> extramural | Type of module: <input type="checkbox"/> basic <input checked="" type="checkbox"/> directional | <input checked="" type="checkbox"/> mandatory <input type="checkbox"/> elective | Semester: 7 <input checked="" type="checkbox"/> winter semester <input type="checkbox"/> summer semester |
| Academic year: | | Intake 2021/2022 | Catalogue number: FVM-V-JMSS-07W-D42_20 |

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| Module coordinator: | Dr Joanna Zarzyńska | | | |
| Teachers responsible for the module: | Academic teachers of the Institute of Veterinary Medicine; Department of Food Hygiene and Public Health Protection; PhD students in accordance to the internal legal acts; visiting professors; other specialists in the field of study if needed and possible | | | |
| Objectives of the module: | <p>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.</p> <p>Lectures:</p> <p>1. European feed law principles and challenges (2h). 2. 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 feeding stuffs (2h)</p> <p>Field exercises: visiting the factory producing feed/ feed additives (feed quality & safety). Visiting the reference laboratory (official veterinary control)</p> <p>The content of the lectures supplements the content of field exercises.</p> | | | |
| Teaching forms, number of hours: | a) Lectures; hours 20 b) Field exercises; hours 10 | | | |
| Teaching methods: | Lectures (10 x 2h) are supported with audio-visual resources (original multimedia presentations, videos). During Field exercises students will confirm theoretical knowledge from lectures in objects connected with feed production and laboratory tests of feed. Discussions with students. The coordinator of the course will define detailed schedule at the beginning of semester. Consultations 1h / week; the consultation schedule will be determined by the course coordinator at the beginning of the semester. | | | |
| Formal prerequisites and initial requirements: | Completion of courses: biochemistry, microbiology, animal nutrition and feeding | | | |
| Learning effects | Course outcomes: | Learning outcomes relative to the course outcomes | Impact on the course outcomes* | |
| Knowledge: | 1 | Student knows the principles of feed chain safety | B.W.16 B.W.17, B.W.20 | 3 3 3 |
| | 2 | Student knows and understands the correct hygiene conditions in feed production | B.W.17, B.W.20 | 3 3 |
| | 3 | Student knows and understands the relevant legislation governing official veterinary inspection in feed sector | B.W.21 | 3 |
| | 4 | Student knows and understands the procedures related to HACCP— Hazard Analysis and Critical Control Points System | B.W.18 | 2 |
| | 5 | Student knows the principles of feed law | B.W.21 | 3 |
| | 6 | Student knows laboratory techniques for standard testing of feed quality | A.W.15 B.W.6 | 2 2 |

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| | 7 | Student knows the rules of feed sampling | B.W.4 | 3 |
| Skills: | 1 | Student interprets the conditions in hygiene of feed, as well as feed safety, | B.U.18 | 3 |
| | 2 | Student logically analyses appropriate legal acts regulating veterinary inspection over feed safety | C.U.2 | 3 |
| | 3 | Student creatively thinks about quality control systems and pest control in feed sector | B.U.22 | 2 |
| | 4 | Student properly analyses and interpret the results of laboratory tests (quality of feed) | B.U.18, | 3 |
| Competences: | 1 | Student is prepared to cooperation with representatives of other professions in the field of feed hygiene and safety | KS.11 | 2 |
| | 2 | Student is prepared to communication and cooperation with entrepreneurs in the feed production sector | KS.11 KS.5 | 2 3 |
| | 3 | Student is prepared to search for actual sources of knowledge and lifelong learning | KS.4 KS.8 | 3 3 |
| | 4 | Student is prepared to use food law acts | KS.4 KS.8 | 3 3 |
| | 5 | Student is prepared to critical assessment of knowledge in the field of feed hygiene | KS.7 | 3 |
| | 6 | Student is prepared to share own knowledge in the field of feed hygiene and to use the knowledge of others | KS.9 | 3 |
| Objectives of the module required to obtain learning effects: | 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. | | | |
| Assessment methods: | 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. | | | |
| Detail description of assessment methods; Formal documentation of learning outcome: | <p>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.</p> <p>Grading scale: 60-67% - 3.0 68-75%- 3.5 76-83%- 4.0 84-92% - 4.5 93-100% - 5.0</p> <p>Final grade: 90% final written test 10% written essay eHMS entry. Records collected in the course portfolio i.e. individual records of student results, presence lists, database of written questions, written assessments of the students, module regulations.</p> | | | |
| Elements impelling final grade: | Obligatory presence on field exercises. In the case of excused absence student is obliged to write an essay in the subject covered by field exercise (supported with literature research). Written essay prepared before the final exam. In the case of excused absence on the written test, the form of completion does not change. | | | |
| Teaching base: | Department of Food Hygiene and Public Health Protection, IVM lecture halls, external stakeholders (feed processing plants, reference laboratories) | | | |
| Mandatory and supportive materials : 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 Relevant scientific publications including those of the module coordinator. | | | | |
| ANNOTATIONS | | | | |

* 3 – complete and detailed, 2 – moderate, 1 – basic.

Quantitative summary of the module:

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| Estimated number of work hours per student (contact and self-study) essential to achieve presumed learning outcomes of the module - base for quantifying ECTS: | 50 h |
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Total ECTS points, accumulated by students during contact learning:

1 ECTS