

Annotation of elective educational component

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| Academic discipline | The incubation of the poultry eggs with the basics of embryology |
| Tutor | Mashkin Yurii Oleksiovych PhD agricultural sciences, associate professor, Department of Technology of Poultry and Pig Production |
| Courses and semesters, when the discipline is planning to study | 1 course (master degree) 2 semester |
| Faculties whose students are invited to study discipline | Biological-technological faculty |
| List of competencies and learning-related outcomes that discipline provides | <p>According to the requirements of the educational-professional program "Technology of production and processing of livestock products" applicants should acquire the ability to obtain the following competencies:</p> <p>GC 1 (general competence). Ability to abstract thinking, analysis and synthesis.</p> <p>GC 2. Skills in using information and communication technologies.</p> <p>PC 4 (professional competence). Ability to model and design technological processes of production and processing of products of animal origin.</p> <p>PC 5. Ability to organize business and financial activities and evaluate the economic efficiency of production and processing of products of animal origin.</p> <p>PC 6. The ability to practically manage working or educational processes in the field of production and processing of products of animal origin, which are complex, unpredictable and require new strategic approaches.</p> <p>PC 10. The ability to clearly and unambiguously convey one's own knowledge, conclusions and arguments to specialists and non-specialists, in particular to people who are studying.</p> <p>The result of studying the discipline is the acquisition of the following knowledge and skills by students of higher education:</p> <ul style="list-style-type: none"> - to develop, implement and modernize effective technologies and processes in the field of production and processing of livestock products (to be able to develop, implement and modernize effective technologies and processes in the field of hatching poultry eggs); - to search for the necessary data in the scientific literature, databases and other sources, analyze and evaluate these data (to be able to search for the necessary data in the scientific literature, databases and other sources regarding the incubation of poultry eggs; to be able to analyze and evaluate the data obtained from the incubation of the eggs of poultry); - to communicate freely orally and in writing in the Ukrainian language and one of the foreign languages when discussing professional issues, research and innovations in the field of production and processing of livestock products and related problems (to be able to communicate freely orally and in writing in the Ukrainian language and one of the foreign languages when discussing professional issues, of research and innovation in the field of hatching poultry eggs); |

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| | - to be responsible for the development of professional knowledge and practices, assessment of the strategic development of the team, formation of an effective personnel policy (to be responsible for the development of professional knowledge and practices, evaluation of the strategic development of the team, formation of an effective personnel policy in the field of hatching eggs of poultry). |
| Description of the discipline | |
| Preconditions necessary for the study of discipline | The selective academic discipline “The incubation of the poultry eggs with the basics of embryology” is based on the knowledge of such disciplines as "Genetics with biometrics", “Farm animal physiology”, “Animal feeding”, “Animal breeding”, "Animal hygiene and welfare" which were studied in the 1st - 3rd courses. |
| Maximum number of students who can simultaneously study | 25 students |
| Topics of classroom lessons | <p>Topics of lectures</p> <ol style="list-style-type: none"> 1. Biological basis of reproduction of poultry eggs/ 2. Morphological structure and chemical composition of eggs. Evaluation of hatching qualities of eggs. 3. Incubators and their operation. 4. Embryonic development of poultry and factors influencing it. 5. Features of egg incubation technology. 6. Biological control of incubation. 7. Evaluation of bred young. 8. Veterinary and sanitary measures in the hatchery. <p>Topics of practical classes</p> <ol style="list-style-type: none"> 1. Morphological structure and chemical composition of eggs, their relationship with incubation qualities. 2. Evaluation of hatching qualities of eggs. 3. Terms and conditions of storage of hatching eggs. Ways to extend the shelf life of eggs. 4. Calculation of the need for hatching eggs and the size of the parent flock according to the given tasks 5. Calculation of the needs of farms of various directions and capacities in incubators. 6. Familiarization with the structure and operation of incubators "Universal-55", "IPK-90", etc. 7. Dependence of bookmark schemes on the type of bird and the need for daily young. 8. Temperature, humidity, ventilation, rotation of trays in different periods of incubation. 9. Control of the incubation mode. 10. Fertilization and early development of embryos. The formation of germinal membranes (amnion, serosa, allantois) and their significance. 11. Formation of various tissues and organs, factors influencing the process of embryonic development. 12. Methods of biological control of hatching eggs. 13. Study of external age signs of embryos of various bird species. 14. Signs of embryo death during incubation of biologically inferior |

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| | eggs (embryonic dystrophy). 15. Infectious diseases of embryos. 16. Breeding of young animals, determination of sex and quality of young animals. Animal husbandry activities with day-old young animals. |
| Language of teaching | Ukrainian |