

Annotation of compulsory academic discipline

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| Subject | Biology of farm animal productivity |
| Tutor | Hrishko Vitaliy Anatoliyovich candidate of sciences, associate professor Department of Animal Hygiene and Basics of Sanitation |
| Course and semester | 1 courses, 1 semester |
| Accepted faculties | Faculty of Biotechnological |
| A list of competences and relevant learning outcomes provided by the discipline | <p>According to the requirements of the educational and professional program "Technology of production and processing of animal husbandry products", applicants must acquire the ability to acquire the following competencies:</p> <p>ZK 1. Ability to abstract thinking, analysis and synthesis. ZK3. Ability to learn and master modern knowledge. ZK8. Ability to communicate in the national language both orally and in writing.</p> <p>FC 1. The ability to use modern ideas about the principles of the organization of the animal body on the basis of knowledge about the course of physiological and biochemical processes.</p> <p>The result of studying in the discipline is the acquisition by students of the following knowledge and skills: To be able to apply abstract methods of analysis when solving tasks related to the selection and use of methods of increasing the productivity of animals.</p> <p>In order to increase the biological productivity of animals, to be able to apply in practice the main biological, physiological and biochemical features of animals and their products in a specific production technology and conducting research activities.</p> |
| The discipline description | |
| Prerequisites necessary of the discipline study | The compulsory academic discipline "Biology of farm animal productivity" is based on knowledge of such disciplines as "Methodology and organization of scientific research", "Chemistry", "Biochemistry in animal husbandry", "Production, storage and quality control of fodder and feed additives", "Feeding of farm animals", "Hygiene and welfare of animals", "Morphology of farm animals", "Physiology of farm animals", "Microbiology in animal husbandry", "Metrology and certification", studied in previous courses. |
| The biggest amount of students | 75 |
| Classroom subjects | <p style="text-align: center;">Lectures.</p> <ol style="list-style-type: none"> 1. Biochemical composition of fodder, animal organism. BAR. 2. General characteristics of physicochemical characteristics of fodder. Biological significance of carbohydrates, lipids, amino acids, water. 3. Stimulants of animal productivity, production and use in animal husbandry. 4. Mechanism of digestion in farm animals, poultry and fish. Digestion in ruminants. 5. Biological bases of dairy productivity of animals. Ontogeny of the mammary gland. The mechanism of milk production. |

6. Biology of egg productivity. Stimulants of egg productivity.
7. Biology of leather and wool productivity.
8. Muscle tissue. The structure of muscle tissue. Biosynthesis of muscle tissue proteins, biosynthesis of carbohydrates, lipids.

Practical classes

1. Biology of the digestion of feed nutrients. Determination of the pH of the chyme of the glandular stomach of a bird.
2. Determination of the pH of the chyme of the muscular stomach of the bird.
3. Determination of the pH of the chyme of the small intestine of the bird.
4. Study of feed digestibility in vitro with the help of an artificial rumen in a buffer soluble rumen juice of cattle.
5. Study of feed digestibility in vitro using artificial rumen in pepsin solution.
6. Determination of the activity of the enzyme preparation of amylsubtilin G3x as a stimulator of increasing the productivity of animals.
7. Determination of the activity of the enzyme preparation protosubtilin G3x as a stimulator of increasing the productivity of animals.
8. Study of the technique of obtaining blood serum. Determination of protein content in blood serum in animals with different levels of productivity.
9. Determination of the activity of aspartate aminotransferase in the liver and blood serum of animals of different productivity.
10. Determination of alanine aminotransferase activity in the liver of animals of different productivity.
11. Determination of alkaline phosphatase activity in the liver of animals and birds with different levels of productivity.
12. Determination of alanine aminotransferase activity in blood serum of animals of different productivity.
13. Determination of alkaline phosphatase activity in blood serum of animals and poultry with different levels of productivity.
14. Determination of carotene content in egg yolk of birds with different levels of feeding.

The teaching language

The Ukrainian and English languages