

**Annotation of compulsory educational component
«Information and computer systems in animal breeding»**

Academic discipline	Information and computer systems in animal breeding
Tutor	Bushtruk Maryna Vitaliivna PhD agricultural sciences, associate professor, department of genetics, breeding and selection of animals
Courses and semesters, when the discipline is planning to study	6 course (master degree), 3 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 must 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. Ability to conduct research at the appropriate level.</p> <p>GC 3. Ability to learn and master modern knowledge.</p> <p>GC 4. Skills of using information and communication technologies.</p> <p>PC 10 (professional competence). Ability to characterize biological and technological processes using specialized software tools.</p> <p>PC 16. The ability to use knowledge of the basic processes of changing genetic information in animal populations.</p> <p>The result of teaching the discipline is the acquisition by students of the following knowledge and skills:</p> <ul style="list-style-type: none"> - to follow their own improvement and master modern knowledge (to know the structure of modern information systems used in animal husbandry; to know the principles of creation of automated information systems used in animal husbandry); - to combine the information and communication technology (to know principles and methods of databases creating for different species of animals; to introduce computer technologies in animal selection); - to create measures to improve selection and breeding work in animal husbandry (to make a qualified choice of a computer program for selection work with different farm animals; to use the modern methods of identification, accounting and evaluation of farm animals; be able to correct of databases on the influence of non-genetic factors; to implement a systematic approach to solving large-scale selection problems).
Description of the discipline	
Preconditions necessary for the study of discipline	Elective educational component «Information and computer systems in animal breeding» is based on knowledge of such disciplines as «Genetics with biometry», «Animal breeding», «Population genetics», «Technology of livestock production», «Technology of pig production», «Organization of breeding business in animal husbandry", «Higher mathematics»" and «Information systems and technologies», studied in previous semesters.

Maximum number of students who can study simultaneously	15 students
Lesson plans	<p>Lectures</p> <ol style="list-style-type: none"> 1. Introduction. Problems of breeding accounting, analysis of breeding and genetic parameters and improvement of desirable characteristics of animals. 2. Information systems in animal husbandry. Automated information system "Incell". 3. Information and computer system "Seleks". 4. Management system dairy cattle breeding "Orsek". 5. Basic principles of creation of information systems (AIS) in dairy cattle breeding. 6. Estimation of the breeding work efficiency. 7. Automated information system in beef cattle. 8. Automated information system in pig farming. 9. Automated information system in poultry. <p>Practical classes</p> <ol style="list-style-type: none"> 1. Information systems in animal husbandry. Management system dairy cattle breeding "Orsek". Computer program "Lider-2". Dairy farm management program "Farm". 2. Basic principles of creation of information systems (AIS) in dairy cattle breeding. 3. Herd management software for dairy cattle UNIFORM-Agri. 4. Estimation of the breeding work efficiency. 5. Automated information system in beef cattle. 6. Automated information system in pig farming. Herd management software «BAZA». Program of operational management of production and breeding processes in pig farming "Intsel". 7. Automated information system in poultry.
Teaching language	Ukrainian