Annotation of compulsory educational component «Technology of beekeeping»

Academic discipline	**Technology of beekeeping**
Tutor	Bezpalyi Ivan, candidate of agricultural sciences, associate professor
Courses and semesters, when the discipline is planning to study	3 course, 6 semester
Faculties whose students are invited to study discipline	Biological-technological faculty
List of competencies and learning-related outcomes that discipline provides	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: GC 3. Ability to apply knowledge in practical situations. GC 4. Knowledge and understanding of the subject area and understanding of professional activity. PC 1. Ability to use professional knowledge in the field of production and processing of livestock products for effective business. PC 2. The ability to use of modern knowledge about methods of reproduction, patterns of individual development and breeding of animals for effective professional activity in the field of animal husbandry. PC 5. The ability to use appropriate systems and methods for keeping farm animals and to control and optimize the microclimate of process rooms. The result of studying the discipline is the students' acquisition of such knowledge and skills: • to ensure compliance with the parameters and control the technological processes of production and processing of livestock products (control and organize the pumping of honey in the apiary, control and organize the collection of pollen and other products, ensure their conservation and storage); • to train employees of modern and new components of technological processes in the area of production and processing of livestock products (own modern methods of keeping bees, assess the condition of bee colonies in different periods of the beekeeping season, be able to reasonably use different methods of reproduction of bee colonies and queen bees); • to ensure the quality of work performed (to have the modern skills to plan and organize of breeding); • to apply knowledge of reproduction and breeding of farm animals for effective economic activity of the enterprise (carry out selection and breeding work and ensure the planned hatching of queens); • carry out rationed feeding of animals (effectively use the food base for the production of beekeeping, procure high-quality hydrocarbons and protein feed for successful wintering of bees); • ensure optimal conditions for keeping farm animals and the microclimate of technological premises (organize the optimal microclimate in the winter house and conduct a successful wintering of bee colonies); • to introduce and use in practice scientifically substantiated technologies of production and processing of livestock products (provide rational maintenance, progressive methods of beekeeping, conduct

	zootechnical and breeding records and economic analysis of the apiary); • to apply international and national standards and practices in professional activities (evaluate the quality of bee products).
Description of the discipline	
Preconditions necessary for the study of discipline	Selective educational component "Technology of production of beekeeping" is based on the knowledge of such disciplines as "Chemistry", "Zoology", "Biochemistry in animal husbandry", "Cultivation of agricultural. Animals", "Hygiene and Animal Welfare" and "Prevention of Animal Diseases" studied in the previous courses.
Maximum number of students who can study simultaneously	25 students
Lesson plans	**Lectures** 1. The value of beekeeping, the composition of the bee colony and its vital activity during the year 2. Reproduction of stasis bee colonies and methods of reproduction of bee colonies 3. Hives, inventory and apiary buildings 4. Tribal work in beekeeping and zoned breeds of bees 5. Spring work in the apiary and preparation of bee colonies for honey collection 6. Methods of keeping bee colonies 7. Preparation of bees for wintering and its implementation 8. Methods of keeping bee colonies in hives of different systems 9. Keeping bees in pavilions: advantages and disadvantages 10. Food base of beekeeping and pollination activity of bees 11. Diseases and pests of bees 12. Obtaining environmentally friendly bee products **Practical classes** 1. Morphological structure of the honey bee 2. Features of the morphological structure of the uterus, drones, worker bees 3. Anatomical and physiological features of honey bees 4. Nervous system and behavior of bees 5. Bee nest, wax buildings and artificial foundation 6. Reproductive system and reproduction of bees 7. Formation of new bee colonies 8. Breeding of queen bees 9. Hives, their classification and structure 10. Bee inventory, apiary buildings and mobile apiary installations 11. Validation of bee colonies in apiaries 12. Spring review of bee colonies 13. Control over the quality of feed and wintering of bees 14. Food base of beekeeping and characteristics of the main honey plants 15. Calendar of flowering honey plants, forage balance of the apiary and pollination of agricultural crops by bees 16. Diseases of bees and measures to combat them, pests and enemies of bees 17. Production and primary processing of the main bee products 18. Production and primary processing of additional bee products 19. Economic analysis of the work of the apiary
Teaching language	Ukrainian