Annotation of compulsory discipline

Name of the discipline	Program management of processes in the industry
Lecturer	**Nedashkivskyi Volodymyr Mykhailovych** doctor of agricultural sciences, Professor of the Department of feed technology, feed additives and animal feed
Course and semester in which it is planned to study the discipline	Master's level of higher education, 2nd semester
Faculties whose students are invited to study the discipline	Biological-technological faculty
A list of competences and relevant learning results provided by the discipline	According to the requirements of the educational and professional program "Technology of production and processing of livestock products", applicants must acquire the ability to acquire the following competencies: GC 1. Ability to abstract thinking, analysis and synthesis. GC 2. Skills in using information and communication technologies. 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. The result of studying the discipline is the acquisition by students of the following knowledge and skills: - to apply modern mathematical methods, information technologies and specialized software for research and development in the field of technologies for the production and processing of livestock products (to know the basic concepts of information technologies and information systems; to know the types of computer information technologies and the peculiarities of their use in agriculture); - to manage complex activities in the field of production and processing of animal husbandry products, determine goals and objectives, plan and distribute work, manage resources (to know the specifics of the practical involvement of the information base in the technological solution of the main problems in animal husbandry to increase the level of animal productivity).
Description of the discipline	
Previous conditions which are necessary for the study of the discipline	The compulsory educational discipline "Program management of processes in the industry" is based on the knowledge of such disciplines as "Information systems and technologies", "Animal feeding", "Animal breeding", "Technology of production of poultry products", "Technology of production of pig products" and "Technology of processing of livestock products", studied in previous courses.
The maximum number of students who can study at the same time	75 students

Topics of in-class activity	**Topics of lectures** 1. Theoretical foundations of software process management in industry. 2. The essence and types of information systems. 3. Information resources of the industry. 4. Mathematical models of control systems. 5. System modeling and optimization of agricultural enterprise. 6. Software for pig farming. 7. Horse breeding software. 8. Software for poultry farming. 9. Software in beekeeping. 10. Software in rabbit breeding. 11. Application of information technologies in veterinary medicine. 12. Programming of microprocessor control systems. 13. Information provision of economic and managerial decisions in the industry. 14. Technological equipment in the processing industry. 15. Information technologies in determining product quality. 16. Computer networks and their application technologies in agriculture. **Topics of practical classes** 1. Application of mobile applications to improve animal feeding. 2. Automated database Fodder database (planning of stock of fodder and fodder products). 3. Optimization of activities in large-scale breeding in animal husbandry. The use of statistical modeling to solve the problems of managing the selection process. 4. Mathematical and instrumental methods of decision support. 5. Programming of mobile applications for mobile devices. 6. Analytical data processing systems OLAP. 7. Use of mobile applications to improve animal feeding. 8. Mathematical and instrumental methods of decision support. 9. Automation of zootechnical accounting and assessment of egg productivity of laying hens and egg incubation. 10. Decision support systems in agriculture "Agrotech", "Zootech", "Farmer". 11. Solving the main problems of managing industry processes using linear programming. Mathematical methods of solving optimization problems using the MS EXCEL package. 12. Photoanalysis system for automated assessment of beef and pork quality. 13. Mastering the principles of Internet information and search systems. Electronic publications. Information resources Internet. Specialized search engines. Specialized thematic catalogs. Information portals. 14. Management of advertising and information processes in the industry. Multimedia information processing tools. Creating a presentation using PowerPoint. 15. Production planning. Calculation of network graphs using MS Project. 16. Use of photo image processing technologies in production.
Language of teaching	Ukrainian