



CATALOG OF ELECTIVE DISCIPLINES
For students in the direction of preparation 7M081 Agronomy

Brief description of the elective disciplines of the educational program

EPG	EP	Form of education	The name of discipline	Code of subject	Discipline cycle	Component	Number of credits	Level of training	Cafedra	Course	Academic period	Pre-requisites	Post-requisites	Brief content of the discipline	Key learning outcomes	Name of the alternative discipline
M131 - «Plant growing»	7M08102 - «Agrotechnology»	Full-time (MS 2 years) trimester	Integrated crop protection	IZR 5204	BS	Elective subjects	5.0	Master's program by specialization (Scientific & pedagogical direction)	Biology, Plant Protection and quarantine	1	2	Bachelor's degree programs in the disciplines of Crop protection, Herbiology, Phytopathology, Entomology. Master's degree - The methodology of experimental work	Research practice, Theory and practice in breeding and seed production	The course is aimed at studying the system of measures to combat harmful organisms, taking into account the economic thresholds of their harmfulness, using primarily limiting natural factors, along with the use of all other methods, that meet environmental, Toxicological requirements. The discipline is based on a rational combination of methods that provide a high economic effect, maximum use of natural regulatory factors, obtaining environmentally friendly crop production.	Ability to solve the problems of preserving crop yields from pests, diseases, weeds, in designing plant protection systems using modern protection technologies and innovative formulations of pesticides.	
M131 - «Plant growing»	7M08102 - «Agrotechnology»	Full-time (MS 2 years) trimester	Optimizing nutrition of crops	OPSK 5205	BS	Elective subjects	5.0	Master's program by specialization (Scientific & pedagogical direction)	Soil science and agricultural chemistry	1	2	Bachelor's degree program in the discipline of Agrochemistry, Methods of experimental business	Farming systems and crop production, Research practice, Theory and practice in breeding and seed production	The discipline is aimed at the formation of theoretical knowledge and practical skills to regulate and optimize the mineral nutrition of field crops on the basis of dietary and environmentally safe use of fertilizers and meliorants, taking into account soil fertility.	Ability to assess the agrochemical properties of soils, soil fertility, in the features of nutrition and fertilizers of crops, in the calculation of agronomic, economic and energy efficiency of fertilizers.	
M131 - «Plant growing»	7M08102 - «Agrotechnology»	Full-time (MS 2 years) trimester	The theoretical fundamentals of modern seed studies and seedage	TOSSSK 6303	AS	Elective subjects	5.0	Master's program by specialization (Scientific & pedagogical direction)	Agriculture and plant growing	2	1	Bachelor's degree programs in the disciplines of Fundamentals of Seed Science, Crop Production. Master's degree - The methodology of experimental work	Master student's research work, including implementation of master's thesis, Patenting and Intellectual Property Protection	The course is intended for the formation of knowledge and skills on the biological foundations and technologies of production of seeds of agricultural crops and the ability of undergraduates to implement technologies of production of seeds of agricultural crops.	Ability in carrying out approbation of crops, the selection and hybridization; master the fundamentals of creating a nursery for variety testing and primary seed, should be able to fill in the documents on breeding and seed production.	
M131 - «Plant growing»	7M08102 - «Agrotechnology»	Full-time (MS 2 years) trimester	confirmation of compliances of crop production	PSPR 6305	AS	Elective subjects	5.0	Master's program by specialization (Scientific & pedagogical direction)	Agriculture and plant growing	2	1	Technology of storage and processing of crop products	Master student's research work, including implementation of master's thesis, Patenting and Intellectual Property Protection	The course is aimed at scientific and methodological bases of standardization and Metrology, consumer properties of agricultural products, requirements of technical regulations and standards for safety and quality of products, methods of assessing its quality, rules of assessment of compliance and certification, the importance of international standardization.	Ability to collect and process information on the examination of the quality of crop products and confirm its compliance, self-search, analysis and evaluation of information on the quality of crop products.	

M131 - «Plant growing»	7M08102 - «Agrotechnology»	Full-time (MS 2 years) trimester	Biometrics	Bio 6300	AS	Elective subjects	5.0	Master's program by specialization (Scientific & pedagogical direction)	Agriculture and plant growing	2	1	The methodology of the experimental case	Agrobiological of fundamentals resursosberegayushih technologies of cultivation of field crops, Master student's research work, including implementation of master's thesis	Discipline is aimed at studying the main methods of biometrics, mathematical and mathematical-statistical methods of processing the results obtained, allowing to determine the variability, heritability of signs and phenomena, the relationship and dependence between them and assess the reliability of the results, apply statistical methods for analyzing the results of experimental studies, acquire skills in applying the methods of biometric analysis quantitative traits for individual plants, their groups, populations or whole agrophytocenoses A selection of the optimal conditions for their growth.	Ability in practical use of in-depth knowledge in the field of scientific agronomy, creativity in professional activities, to be able to organize work on the exchange of information in this area, to analyze and evaluate the data obtained, to Be competent in the acquisition of practical skills in professional competencies required for research work
M131 - «Plant growing»	7M08102 - «Agrotechnology»	Full-time (MS 2 years) trimester	Agrobiological of fundamentals resursosberegayushih technologies of cultivation of field crops	AORTVPK 6300	AS	Elective subjects	5.0	Master's program by specialization (Scientific & pedagogical direction)	Agriculture and plant growing	2	2	Программы бакалавриата по дисциплинам - Земледелие, растениеводство, Методика опытного дела	Master student's research work, including implementation of master's thesis	The discipline forms knowledge about the use of the laws of agriculture in the practice of modern agriculture, optimization of living conditions of agricultural plants, the introduction of saving technologies that form stable economically profitable levels of productivity at low cost, resource-saving technologies of cultivation of grain moisture energy saving in potato	The ability to use agricultural techniques that contribute to the preservation and improvement of soil fertility, in the methods of economic evaluation of resource-saving elements of cultivation technology, in a comprehensive assessment of the state of resource-saving technologies of cultivation, in the assessment of possible factors reducing crop yields, the development of actions for the management of plant development.

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Head of the department

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