

PASSPORT OF EDUCATIONAL PROGRAM

Code and classification of the field of education	6B05 Science, mathematics and statistics
Code and classification of the direction of training	6B051 Biological and related Sciences
Number and name of the educational program group	B050 Biological and related Sciences
Number and name of the educational program	«Biotechnology»
The purpose of the program	Current educational program
Distinctive features of the educational program	The educational program is aimed at the formation of professional competencies that provide employment opportunities for related professions in various organizations in the positions of: biotechnologist, researcher of research laboratories, food production technologist, inspector of sanitary and epidemiological stations and environmental services, specialist in laboratories for quality control and food safety, in standardization and certification centers.
Availability of accreditation	Registration number: AV3396, from 05/27/2021 to 05/26/2026
Learning result	<p>After successful completion of this program the trainer will be able:</p> <p>ON1: To use the skills of working with specialized laboratory equipment and devices to solve practical problems and research activities in the field of biotechnology; to organize and conduct experiments using knowledge, skills and experience of working with various objects of biotechnology</p> <p>ON2: Able to use the basic concepts and methods of analysis and apply physical, chemical and mathematical laws to solve practical problems in the professional activities of biotechnologist;</p> <p>ON3: To apply in practice the specialized knowledge of fundamental sections of microbiology and skills of research to master microbiological processes occurring in the production of foodstuffs, biologically active substances and secondary metabolites, as well as to evaluate the results obtained;</p> <p>ON4: To analyze current developments in biotechnology and new trends in the development of the biotechnology industry, and use some production technologies according to these achievements;</p> <p>ON5: To know the basics and methods of biotechnology, principles of selection of biotechnological objects and requirements for them;</p> <p>ON6: To demonstrate knowledge of the selection of raw materials, range and technology of food production, which are produced by the food industry;</p> <p>ON7: To manage the technological process of obtaining biotechnological products based on various raw materials and processes of separation and purification of finished products;</p> <p>ON8: To operate modern professional biotechnological equipment and scientific instruments, as well as to organize, plan and manage existing biotechnological processes and production;</p>

	<p>ON9: To master the principles of technological schemes, technical and technological documentation, selection criteria and calculation of the area of production halls, laboratories and auxiliary premises;</p> <p>ON10: To use the basic laws of heredity and variability, the characteristics of genetic material, the basics of genetic analysis, chromosome theory of heredity, types and causes of variability of organisms in solving practical problems in the field of genetic engineering, breeding, for biotechnological processes;</p> <p>ON11: To monitor and evaluate compliance with environmental, chemical (Toxicological analysis) and biological safety of food raw materials, food ingredients and finished products at the enterprises of biotechnological production and technological laboratories</p> <p>ON12: Demonstrate knowledge of standardization and certification and ability to work with regulatory and technical documentation;</p> <p>ON13: To argue the importance of living organisms in bioremediation, bioremediation technology and the use of bioreactors for environmental purification;</p> <p>ON14: To be able to use the state and foreign languages in professional activities, scientific and practical work, in communication with foreign colleagues, for self-educational and other purposes.</p> <p>ON15: Systematize, summarize legal and economic information for use in professional, including entrepreneurial activities. Analyze, summarize economic information and systematize safety standards for use in professional activities</p>
Degree awarded	Bachelor of Science in the educational program "Biotechnology»
List of qualifications and positions	<p>Graduates of the specialty 6B05121 "Biotechnology" can perform the following types of professional activities:</p> <ul style="list-style-type: none"> - biotechnologist; - researcher at research laboratories; - food production technologist; - inspector of sanitary and epidemiological stations, environmental services; - specialist in laboratories for quality control and safety of food products, agricultural enterprises, standardization and certification centers.
Field of professional activity	<p>The field of activity of the graduate:</p> <ul style="list-style-type: none"> - manufacturing enterprises and laboratories of the food, processing, microbiological, medical, pharmaceutical industry; - research institutes and universities, biotechnological, biological, medical, agricultural fields; - breeding and variety testing stations, plant protection stations; - environmental services and organizations; - sanitary and epidemiological stations; - laboratories for quality and safety control of food products; - agricultural enterprises - fish-breeding and fur-breeding plants; - standardization and certification centers, etc.