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MINISTRY OF SCIENCE AND HIGHER EDUCATION OF THE RUSSIAN FEDERATION

Federal State Budgetary Educational Institution of Higher Education

Kadyrov Chechen State University

THE CORE PROFESSIONAL EDUCATION PROGRAM OF HIGHER EDUCATION

Training direction	Biology
Code	06.03.01
Profile	Microbiology
Graduate qualification	Bachelor
Form of training	Full-time/part-time
The period of study of the Professional Education and Training Program	4 years on a full-time basis / 5 years on a part-time basis

Grozny - 2023

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1. GENERAL PROVISIONS

Bachelor Program of Higher Education (BPHE) realized by Biology and Chemistry Faculty in the training direction 06.03.01 Biology, profile "Microbiology" is a system of documents developed and approved by FSBEI HE "Kadyrov Chechen State University" taking into account the requirements of the regional labor market on the basis of the Federal State Educational Standard of Higher Education – Bachelor Degree in the training direction Biology 06.03.01, approved by Decree № 920 of August 7, 2020.

The Bachelor Program regulates a set of core educational characteristics (volume, content, planned results), organizational and pedagogical conditions and technologies of educational process realization, evaluation of graduate training quality in this field of study and includes: curriculum, academic calendar, working programs of disciplines (modules), working programs of practices, program of state final certification, competence matrix and other materials ensuring quality of students' training: evaluation funds

Main professional educational program of higher education in the training direction Biology 06.03.01 profile "Microbiology" is realized by FSBEI HE "Kadyrov Chechen State University" (hereinafter referred to as the University) independently, without the use of network form.

The Bachelor degree program is implemented in the state language of the Russian Federation – Russian.

Graduates of the Bachelor's degree program in the training direction 06.03.01 Biology profile "Microbiology" qualification – bachelor.

1.1 Regulatory documents for the development of the Core Educational Program of Higher Education

1. Federal Law No. 273-FZ dated December 29, 2012 "On Education in the Russian Federation".
2. Order of the Ministry of Science and Higher Education on the approval of the federal state educational standard of higher education - Bachelor's Degree in Biology of August 7, 2020 ¹920 (registered by the Ministry of Justice of the Russian Federation in August 20, 2020, registration ¹ 59357).
3. Order of the Ministry of Science and Higher Education of November 26, 2020 N 1456 "On amendments to the federal state educational standards of higher education".
4. Order of the Ministry of Science and Education of Russia from April 06, 2021 N 245 "On approval of the Order of organization and implementation of educational activities under educational programs of higher education - Bachelor's degree programs, specialist's degree programs, Master's degree programs".
5. The procedure for the state final attestation on educational programs of higher education - bachelor's degree programs, specialist programs and master's degree programs, approved by the order of the Ministry of Education and Science of Russia from June 29, 2015 № 636 (ed. from 27.03.2020).

6. Order of the Ministry of Education and Science of the Russian Federation and the Ministry of Education of the Russian Federation from August 5, 2020 N 885/390 "On practical training of students".

7. Professional standard "Specialist in industrial pharmacy in the field of drug research", approved by the order of the Ministry of Labor and Social Protection of the Russian Federation of May 22, 2017 N 432n.

7. Professional standard "Teacher (pedagogical activity in the sphere of preschool, primary general, core general, secondary general education) (tutor, teacher)", approved by the order of the Ministry of Labor and Social Protection of the Russian Federation from October 18, 2013 № 544n (as amended by Order of the Ministry of Labor of Russia of 05.08.2016 N 422n).

8. Professional standard "Specialist in the field of environmental biotechnologies" (approved by Order of the Ministry of Labor and Social Protection of the Russian Federation dated September 16, 2022 N 561n).

9. Professional standard "Specialist in aquatic bioresources and aquaculture", approved by the order of the Ministry of Labor and Social Protection of the Russian Federation on October 8, 2020 N 714n.

10. Professional standard "Specialist in safety, traceability and quality of food products at all stages of production" (approved by Order of the Ministry of Labor and Social Protection of the Russian Federation dated September 2, 2020 N 556n)

11. Charter of the Federal State Budgetary Educational Institution of Higher Professional Education "Kadyrov Chechen State University".

12. Local regulations of the federal state budget educational institution of higher education "Kadyrov Chechen State University".

1.2 General characteristics of the university core educational program of higher education in the field of training

1.2.1 Purpose (mission) of the PEPHE Program

The purpose (mission) of the PEP program is to develop highly qualified professionals with the latest level of knowledge in the study of biological systems, who are competitive in the Russian and foreign labor markets and are able to ensure the technological progress of the country.

The aim of the educational program is to train students to acquire the qualifications necessary for professional activity in accordance with the FSES requirements in the training direction 06.03.01 Biology on the basis of rapid updating of educational technologies, the introduction of new information technologies of education, including the creation of electronic information educational environment, development and updating of textbooks and teaching aids (including electronic) in accordance with the requirements of the educational standard

The purpose of the educational program of bachelor training in the field of education is to combine professional education with the development of humanitarian culture, the formation of spiritually rich, intellectually equipped, socially responsible personality.

1.2.2 Terms of study of the Bachelor's degree program

Regardless of the used educational technologies the standard term of study of the main professional educational program of higher education in the training direction 06.03.01 Biology, profile "Microbiology" in the full-time mode of study including the vacations after the state final examinations is 4 years. In the part-time form of study, regardless of the applied educational technologies - 5 years.

When studying on an individual curriculum term of study is not more than the period of education, established for the relevant form of education, and when studying on an individual plan of persons with disabilities may be increased, at their request, not more than one year compared with the period of education for the appropriate form of education.

1.2.3 Workload. EDUCATIONAL PROGRAMS OF HIGHER EDUCATION.

The total volume of development of the FSES of higher education in the direction of 06.03.01 Biology, profile "Microbiology" by students regardless of the form of study for the entire period of study in accordance with the federal state educational standards of higher education (hereinafter - FSES HE) is 240 credit units. One credit unit corresponds to 36 academic hours.

The volume of the Bachelor degree program, implemented for one academic year, is not more than 70 credit units regardless of the form of training, implementation of the Bachelor degree program on an individual curriculum (except for accelerated training), and at the accelerated training - not more than 80 credit units.

1.3 Requirements to the level of training necessary to master the educational program of Higher Education

To master this educational program of study the entrant must have a document of state standard of secondary (complete) general education or secondary vocational education.

2. CHARACTERISTICS OF PROFESSIONAL ACTIVITY

2.1 Area of professional activity of the graduate

The fields of professional activity and (or) spheres of professional activity in which graduates of the bachelor degree program can carry out professional activity:

01 Public health (in the field of drug research);

15 Fish farming and fishery (in the sphere of monitoring of aquatic biological resources and their habitat by microbiological indicators);

22 Food industry, including production of beverages and tobacco (in the sphere of food safety and quality research);

26 Chemical, chemical and technological production (in the sphere of bioecological technologies).

Graduates can carry out professional activity in other areas of professional activity and (or) spheres of professional activity provided that the level of their education and received competencies correspond to the qualification requirements of the employee.

2.2 Objects of graduate professional activity

The objects of professional activity of a graduate in the direction of training 06.03.01. Biology and "Microbiology" in accordance with the FSES in this direction are biological systems of all levels of organization; the processes of their vital activity and evolution.

2.3 Types of graduate's professional activities

The given bachelor degree program in accordance with FSES of Higher Education on the direction of training 06.03.01 Biology is focused on scientific research and pedagogical types of professional activity as the core ones (further the program of academic baccalaureate).

2.4 Professional activity objectives of the graduate:

The graduate of training direction 06.03.01 "Biology" and the profile "Microbiology" must be ready to solve the following professional tasks in accordance with the types of professional activity of the Bachelor's degree program:

- organizational and regulatory support of applied research in the field of development of new drugs and improvement of industrially produced drugs (synthetic, biological, immunobiological, biotechnological, genotherapeutic, radiopharmaceutical, homeopathic, natural origin and medical gases);

- ensuring safety, traceability and quality of food products at all stages of their production and market circulation;

- protection of the environment and elimination of the consequences of harmful impact on it using biotechnological methods;

- monitoring of aquatic biological resources and their habitat.

2.5 Generalized labor functions, labor functions in accordance with the types of professional activities of professional activities

Code of professional standard	Code of professional standard	labor functions
	appellation	appellation
02.010	Conducting work on drug trials	Conducting pharmaceutical development work
15.004	Monitoring and management of aquatic biological resources and their habitats	Monitoring the quality and safety of aquatic biological resources, their habitats and products by microbiological indicators in the process of operational management of aquatic bioresources and aquaculture facilities
22.007	Laboratory control of food safety and quality indicators at all stages of food	Conducting laboratory studies of food product safety and quality

	production производства и обращения на рынке	
26.008	Environmental monitoring for the application of environmental biotechnologies application of environmental biotechnologies	Environmental assessment of territories
		Risk assessment and potential applications of conservation biotechnologies
		Identification of area marker systems and characteristics required for monitoring protocols for potentially hazardous biosites
	Development of measures and recommendations on application of environmental biotechnologies for cleaning up contaminated sites	Development of measures for cleaning of soils, surface and ground waters from industrial pollution by microorganisms-destructors

3. GRADUATE'S COMPETENCIES FORMED AS A RESULT OF MASTERING PEP

The results of mastering the educational program are determined by the competencies acquired by the graduate, i.e. his/her ability to apply the knowledge, skills and personal qualities in accordance with the tasks of professional activity.

A graduate who has mastered this Bachelor Program should have the following competencies:

Universal competences (UC) and indicators of their achievement

Name of category (group) of universal competences Code and name of universal competence of the graduate Code and name of the indicator of achievement of universal competence	Code and name of universal competence of the graduate	Code and name of the indicator of achievement of universal competence
Systems and critical thinking	UC-1. Is able to search, critically analyze and synthesize information, apply a systematic approach to solve problems	UC -1.1 Analyzes the problem, identifying its core components; UC -1.2. Finds and critically analyzes necessary information; UC-1.3 Critically considers possible variants of problem solution; UC-1.4 Forms own judgments and evaluations in a literate, logical, reasoned way. MC-1.5. Identifies and evaluates the consequences of possible solutions of the problem.

Project development and implementation	UC-2. Is able to determine the range of tasks within the set goal and choose the best ways to solve them, based on the current legal norms, available resources and limitations	UC-2.1. Formulates a set of interrelated tasks within the framework of the project goal to achieve it, and determines the expected results of solving the selected tasks; UC-2.2 Designs a solution to a specific project problem, choosing the best way to solve it, based on current legal standards and available resources and constraints; UC -2.3 Solves specific project tasks of a stated quality and in a specified time frame; UC -2.4 Publicly presents the results of solving a specific project problem; UC-2.5. Knows the skills of paperwork, publicly presents the results of solving a specific project task or the project as a whole; BK-2.5.
Teamwork and Leadership	UC-3. Is able to carry out social interaction and realize his/her role in the team	UC-3.1 Builds social dialogue taking into account the core laws of interpersonal interaction. UC-3.2 Anticipates and is able to prevent conflicts in the process of social interaction UC-3.3 Knows how to establish interpersonal and professional of contacts, development of professional communication including international teams UC-3.4 Understands the core principles of distribution and differentiation of roles in the team. UC -3.5 Demonstrates readiness to perform various roles in a team in order to achieve maximum effectiveness of the team.
Communication	UC-4. Able to communicate orally and in writing in the state language of the Russian Federation and foreign language(s)	UC-4.1 Knows the system of norms of Russian literary language and norms of foreign language(s); is able to construct logically and grammatically correct oral and written speech. UC-4.2 Communicates competently based on goals and situation; uses communicatively acceptable communication style, verbal and non-verbal means of interaction with partners. UC -4.3 Uses information and communication technologies to find necessary information in the process of solving standard communicative tasks in the national and foreign language(s). UC -4.4 Freely perceives, analyzes and critically evaluates oral and written business information in Russian, native and foreign language(s). UC -4.5 Demonstrates the ability to translate texts from foreign language(s) into the national language(s) and from the national language(s) into foreign language(s).
Intercultural interaction	UC -5 Able to perceive the intercultural	UC-5.1 Demonstrates tolerant perception of social, religious and cultural differences, respectful and careful attitude to the historical heritage and cultural traditions.

	diversity of society in socio-historical, ethical, and philosophical contexts	UC-5.2 Finds and uses information necessary for interaction with others about the cultural characteristics and traditions of different social groups. UC-5.3 Demonstrates a respectful attitude toward the historical heritage and socio-cultural traditions of different social groups based on knowledge of the stages of Russia's historical development in the context of world history and cultural traditions of the world. UC-5.4 Uses philosophical knowledge to form a worldview position, which implies the adoption of moral obligations towards nature, society, other people and oneself.
Self-organization and self-development (including health saving)	UC-6. Is able to manage his time, build and implement a trajectory of self-development based on the principles of lifelong learning	UC-6.1 Evaluates personal resources to achieve their time management goals for successful completion of assigned work and self-development. UC-6.2 Critically evaluates the effectiveness of time use in solving assigned tasks, as well as in relation to the result obtained. UC-6.3 Demonstrates interest in self-development and uses the opportunities provided to acquire new knowledge and skills, based on the notion of lifelong learning UC-6.4 Uses a variety of self-improvement and self-development technologies and techniques to achieve personal effectiveness.
	UC-7 Is able to maintain an appropriate level of physical fitness to ensure full social and professional activities	UC-7.1 Analyzes and critically comprehends the influence of lifestyle on health indicators and physical fitness, including his/her own. UC-7.2 Is fluent in healthy lifestyle norms, health-saving technologies, methods and means of maintaining physical fitness. UC-7.3 Adequately chooses methods and means of physical education and sport to maintain own level of physical fitness, to restore efficiency in conditions of increased nervous tension, to correct own health. UC-7.4 Has an understanding of rational methods and techniques for the prevention of occupational diseases, psychophysical and nervous-emotional fatigue in the workplace.
Life Safety	UC-8 Capable of creating and maintaining safe living conditions, including emergencies	UC-8.1 Comply with the core requirements of information security UC-8.2 Freely oriented in the choice of rules of behavior in an emergency situation of natural, man-made or social origin. UC-8.3 Is able to provide first aid to an injured person. UC-8.4 Demonstrates knowledge in the field of occupational safety.

General professional competencies (GPC) and indicators of their achievement

Name of the category (group) of the DIC	Code and name of the graduate's OK	Code and name of the indicator of achievement of general professional competence

1	2	3
Theoretical and practical foundations of professional activity	GPC -1 Able to apply knowledge of biodiversity and use observation methods, identifying, classifying, reproducing, and culturing living objects to solve professional problems/	GPC-1.1. Knows: theoretical foundations of microbiology and virology, botany, zoology and uses them to study life and properties of living objects, their identification and cultivation; GPC-1.2. Skills: - Apply methods of observation, classification, and reproduction of biological objects under natural and laboratory conditions; GPC -1.3 Knows: - Experience in participation in work on monitoring and protection of biological resources, the use of biological objects for the analysis of the quality of their habitat; GPC-1.4 Understands the role of biological diversity as a leading factor in the sustainability of living systems and the biosphere as a whole.
Theoretical and practical foundations of professional activity	GPC -2 Able to use knowledge of the principles of structural and functional organization and physiological, cytological, biochemical, biophysical methods to assess and correct the condition of living objects and monitor their habitat	GPC-2.1. Knows: core systems of life support and homeostatic regulation of vital functions in plants and animals, ways of perception, storage and transfer of information, oriented in modern methodological approaches, concepts and problems of physiology, cytology, biochemistry, biophysics; GPC-2.2 Skills: - Carry out the choice of methods adequate for the solution of the research problem; - Identify links between physiological state of an object and environmental factors. GPC-2.3 Knows: - Experience in applying experimental methods to assess the condition of living objects.
Theoretical and practical foundations of professional activity	GPC -3 Able to apply knowledge of evolutionary theory, use modern ideas about the structural and functional organization of the genetic program of living objects and methods of molecular biology, genetics and developmental biology to study the mechanisms of	GPC -3.1 Knows: - Fundamentals of evolutionary theory, analyzes current trends in the study of evolutionary processes; GPC -3.2. be able to: - Use in professional activity modern ideas about the manifestation of heredity and

	ontogenesis and phylogenesis in professional activities;	variability at all levels of organization of living things; - Use in professional activity the notions of genetic basis of evolutionary processes, genomics, proteomics, genetics of development; GPC-3.3 Knows: - Core methods of genetic analysis. GPC-3.4 Knows: - Core biology of reproduction and individual development; GPC-3.5 Skills: - Use in professional activities modern ideas about the mechanisms of growth, morphogenesis and cytodifferentiation, and the causes of developmental abnormalities; GPC-3.6 Knows: - methods of obtaining embryonic material, reproduction of living organisms in laboratory and production conditions.
Theoretical and practical foundations of professional activity	GPC -4 Able to carry out activities for the protection, use, monitoring and restoration of biological resources, using knowledge of patterns and methods of general and applied ecology;	GPC -4.1 Knows: - Cores of interaction between organisms and their environment, environmental factors and mechanisms of organisms' responses, principles of population ecology, community ecology; cores of organization and sustainability of ecosystems and the biosphere as a whole; GPC -4.2 Know how to: - Use methods of analysis and modeling of ecological processes, anthropogenic impacts on living systems and ecological forecasting in professional activities; - Justify ecological principles of rational nature management and nature protection; GPC -4.3: - Skills in identifying and predicting the response of living organisms, communities and ecosystems to anthropogenic impacts, determining environmental risk.
Presentation of the results of	GPC-5 Able to apply in professional activity modern	GPC-5.2 Skills:

professional activities	understanding of the cores of biotechnology and biomedical production, genetic engineering, nanobiotechnology, molecular modeling;	- Evaluate and predict the promise of their professional objects for biotechnology production; GPC-5.3 Knows: - techniques for determining the biological safety of products of biotechnological and biomedical productions.
	GPC-6. Is able to use core knowledge in the field of mathematics, physics, earth sciences and biology in professional activities, to predict the consequences of his/her professional activities, to be responsible for his/her decisions.	GPC -6.1 Knows core concepts and methods, current trends in mathematics, physics, chemistry and earth sciences, current problems of biological sciences and perspectives of interdisciplinary research; GPC -6.2 Is able to use laboratory skills and methods of chemistry, physics, mathematical modeling and mathematical statistics in professional activities; GPC -6.3 Knows: methods of statistical evaluation and hypothesis testing, prediction of perspectives and social consequences of professional activity.
Application of information and communication technologies	GPC-7. Is able to understand the principles of technology and use them to solve problems of professional activity	GPC -7.1 Knows: principles of information analysis, core reference systems, professional databases, information security requirements; GPC -7.2 Can: use modern information technologies for self-development and professional activities and business communication; GPC -7.3 Knows: the culture of bibliographic research and the formation of bibliographic lists.
Project development and implementation	GPC -8 Able to use methods of collecting, processing, systematizing and presenting field and laboratory information, apply skills of working with modern equipment, analyze the results obtained	GPC -8.2 Be able to: - Analyze and critically evaluate the development of scientific ideas, make a plan for solving a given problem based on available resources, and select and modify methodological techniques; GPC -8.3 Knows:

		- Skills in the use of modern equipment in the field and in the laboratory, the ability to competently justify the assigned tasks in the context of the current state of the problem, the ability to use mathematical methods of evaluation of hypotheses, processing of experimental data, mathematical modeling of biological processes and adequately assess the validity and significance of obtained results, present them in a wide audience and conduct a discussion.

Professional competencies (PC) and indicators of their achievement

Name of the category (group) of the DIC	Code and name of the graduate's OK	Code and name of the indicator of achievement of general professional competence
Mandatory professional competencies		
research activities	PC-1- ability to operate modern apparatus and equipment to perform research field and laboratory biological works;	PC-1.1 Knows the structure and principles of operation and control of the equipment used; safety rules when working with the equipment used; possible areas of use of equipment and instruments for biological research; the core principles of preparation and conduct of research field and laboratory biological work
research activities	PC-3 Ability to practice the techniques of scientific reporting, present and critically analyze the information obtained and present the results of laboratory biological research	PC-3.1 Knows: mathematical methods of processing results; rules of compiling scientific reports; requirements for writing and compiling reports, core techniques and methods of design, presentation and interpretation of the results of research work. PC-3.2 Be able to: analyze scientific data, results of experiments and observations; select the method of presentation of information in accordance with the task; search for information in databases, computer networks; work with scientific literature; conduct research according to special methods; conduct mathematical processing of results. PC-3.4 Is able to participate in the work on microbiological control of food safety and habitat of organisms. PC-3.5 Have the theoretical foundations and technology of modern microbiological and biotechnological production
Pedagogical activities	PC 4 Is able to carry out pedagogical activities in	PC-4.1 Knows the principles of organizing students' activities aimed at mastering

	preschool, primary, core and secondary general education and additional programs in accordance with the qualification obtained	biological disciplines and additional general education program PC-4.2 Knows the methods of teaching, control and evaluation of program material mastering

4. DOCUMENTS REGULATING THE CONTENT AND ORGANIZATION OF THE EDUCATIONAL PROCESS

The programs of academic disciplines of the Biology's degree program are developed in accordance with the Regulations on the working program of the discipline, implemented under the FSES HE (level of education - Biology 's degree), approved by the Academic Council of the University from 28.09.2017 r., (Minutes № 6).

The program of each discipline clearly formulates the goals, objectives of the study of disciplines (modules), content, learning outcomes in organic connection with the knowledge, skills and acquired competencies, characterizing the stages of competence formation and ensuring the achievement of the planned results of the Bachelor's degree program.

The authors of the working programs of disciplines are teachers of the A.A. Kadyrov Chechen State University from among the highly qualified personnel who have academic degrees, conduct independent research activities, have publications on the results of research activities in leading peer-reviewed scientific journals and publications, as well as approbation of the results of these research activities at national and international conferences.

4.1 Calendar academic schedule

The schedule of the educational process of the educational program for all forms of study (full-time, part-time) establishes the sequence and duration of the educational process, interim attestations, practical training, state final attestation and vacations of bachelors. The program provides for the duration of the educational process for the full-time form of training - 4 years and 5 years for the part-time form of training. The academic calendar in the form of an electronic document is posted on the University website https://chesu.ru/sveden/education/eduop.

4.2 Curriculum

In compiling the curriculum, the University follows the general requirements for the conditions of implementation of basic educational programs as formulated in Section VI of the FSES of Higher Education in the field of 06.03.01 Biology.

The curriculum reflects the logical sequence of the blocks, sections of the educational program, academic disciplines (modules) and practices that provide the formation of competencies. Indicates the total labor intensity of disciplines, practices in credit units, as well as their total and classroom labor intensity in hours. The main educational program contains disciplines for the choice of students in the amount of not less than one third of the variable part of the total for all three blocks of the educational program of higher education.

For each discipline, module, practice indicated types of academic work and forms of interim certification. The curriculum in the form of an electronic document is posted on the website of the University.

The structure of the Bachelor's degree program in the curriculum includes a mandatory part (basic) and an optional part and consists of the following blocks:

Block 1 "Disciplines (modules)", which includes disciplines (modules) related to the basic part of the program, and disciplines (modules) related to its variable part.

Block 2 "Practicums", which in its entirety refers to the variative part of the program.

Block 3 "State Final Attestation", which fully refers to the basic part of the program and is completed with the awarding of the qualification: Bachelor.

The volume of the compulsory part, excluding the volume of the state final certification is 57.5% of the total volume of the bachelor program.

The program structure		Volume in credits
Block 1	Disciplines (modules)	**201**
	Compulsory part	121
	Part formed by participants of educational relations	80
Block 2	Practice	**30**
	Compulsory part	17
	Part formed by participants of educational relations	13
Block 3	State final certification	**9**
Scope of the bachelor's program		240
FTD.	Electives	**4**

4.3 Working programs of academic courses, subjects, disciplines (modules)

Programs of academic disciplines of the PEP program are developed in accordance with the Regulations on the working program of disciplines implemented on the FSES of higher education (level of education - Bachelor's degree), approved by the University Academic Council of 28.09.2017, (Minutes № 6).

In the program of each discipline clearly defined goals, objectives of disciplines (modules), content, final results of learning in an organic link with the mastered knowledge, skills and acquired competencies that characterize the stages of competence formation and ensure the achievement of the planned results of the Bachelor's program.

The authors of working programs of disciplines are teachers of the Federal State Budgetary Educational Institution of Higher Professional Education " Kadyrov Chechen State University " from among highly qualified personnel with a degree, leading independent research activities, having publications on the results of research activities in leading peer-reviewed scientific journals and editions, as well as conducting approbation of the results of these research activities at national and international conferences.

4.4 Practicum programs and organization of students' research work

In accordance with the FSES of the Bachelor's degree program 06.03.01 Biology Block 2 "Practicums" is required.

Block 2 is a type of training directly aimed at the professional and practical training of students. Block 2 "Practices" of the basic educational program of PEP includes educational and industrial practices.

Practicum programs are designed in accordance with the Regulations on the practical training of students in FSBEI VE " Kadyrov Chechen State University, approved at the meeting of the Academic Council of the University of January 28, 2022.

4.4.1 Programs of training practices

The working program of educational practice regulates the goals, objectives and content, including the calendar planning of educational practice (for each type).

Educational practice is carried out in accordance with the calendar curriculum and the curriculum of PEP in the laboratories of the Department of Cell Biology, Morphology and

Microbiology and CKP University, as well as on the basis of employers' organizations. Management of practical training is carried out by a teacher of the department (head of practice), in the case of training practices on the basis of organizations - appointed by the head of the organization.

At realization of educational programs of higher education on a direction of training 06.03.01 Biology profile "Microbiology" the following types of educational practices are provided: educational and field, introductory (on a profile of training) and research (reception of first skills of research work).

Methods of training practice: stationary;

on-site (training in the field).

The program of educational practice is posted on the University website https://chesu.ru/sveden/files/RPP_06.03.01_Mikrobiologiya_(2).pdf

4.4.2 Program of industrial practice

Work practice is a type of practical training, directly aimed at the professional training of students.

According to FSES of the bachelor degree on a field of study 06.03.01 Biology the FSES of the bachelor degree on a field of study 06.03.01 Biology, Profile "Microbiology" provides two types of industrial practices

- Internship according to professional profile;
- Pre-diploma practice, including research work

Practice according to the profile of professional activity consolidates knowledge and the abilities got by students as a result of theoretical courses, develops practical skills and promotes a complex formation of universal, professional and professional competences of students. Internship, including research work - an important part of the educational process, allowing the student to acquire research skills and qualitatively prepare for writing and defending the graduate qualification work. This type of practice is aimed at the development of students' ability to make independent theoretical and practical judgments and conclusions, the ability to give an objective assessment of scientific information and freely carry out scientific search, the desire to apply scientific knowledge in psychological and pedagogical activity.

Passing of industrial practice is carried out on the basis of laboratories of the Department of Cell Biology, Morphology and Microbiology, including the laboratory for the study of pathogens of infectious and parasitic diseases, the CCP of the FSBEI VO " Kadyrov Chechen State University" and on the basis of the third organizations that have the necessary personnel and scientific and technical potential.

The internship program is posted in electronic form on the University website (https://chesu.ru/sveden/files/RPP_06.03.01_Mikrobiologiya_(2).pdf)

5. ACTUAL RESOURCE SUPPORT

Resource supply of the bachelor degree program in the field of study 06.03.01 Biology is formed on the basis of the requirements for the conditions of implementation of educational programs determined by the FSES of Higher Education in this field of study.

The qualification of the teaching staff of the University corresponds to the qualification requirements specified in the qualification handbooks, and (or) professional standards.

At least 70% of the number of teaching staff of the university involved in the implementation of the PEP program, and persons involved in the implementation of the program on other terms (based on the number of substituted rates, reduced to integer values) conduct scientific, educational, methodological and (or) practical work that corresponds to the profile of the discipline (module) taught.

At least 5% of the number of teaching staff of the University involved in the implementation of the PEP program, and persons involved in the implementation of the program on other terms (based on the number of substituted rates, reduced to integer values), are managers and (or) employees of other organizations. The involved persons carry out labor activity in the professional sphere corresponding to the professional activity to which the graduates are trained. At the same time, these persons have at least 3 years of work experience in this professional sphere.

At least 60% of the number of teaching staff of the university and persons involved in the educational activities of the university (based on the number of substituted rates, reduced to integer values) have and (or):

- an academic degree (including an academic degree obtained in a foreign country and recognized in the Russian Federation);
- academic title (including an academic title obtained in a foreign state and recognized in the Russian Federation).

The material-technical base necessary for the implementation of this academic bachelor degree program is provided by the availability of: buildings and premises of the academic buildings, which are the University on the rights of operational management, decorated in accordance with current requirements; the University botanical garden; laboratory equipment of the Department of Cell Biology, Morphology and Microbiology (including a laboratory for the study of parasitic and infectious agents), Department of Botany, Zoology and Bioecology, the Department of Physiology and Anatomy of the Department of Biology and Anatomy. The rooms are classrooms for the classes stipulated by this Education Program of Higher Education, equipped with equipment and technical means of training, the composition of which is defined in the working programs of disciplines (modules).

The rooms are classrooms for the classes stipulated by this PEP program, equipped with equipment and technical means of education, the composition of which is defined in the working programs of disciplines (modules). The list of classrooms is located on the official website of the University in the information and communication network Internet http://chesu.ru/sveden/objects/#anchor_purposePrac

The rooms for independent work of students are equipped with computers with the ability to connect to the Internet and access to the electronic information and educational environment of the university.

The implementation of this educational program is carried out in the following buildings (with the address):

the academic building of the campus at 31 "A" Leo Yashin Street;

the academic building at the address 17, Dudayev Blvd;

the academic building at the address of 33, Kievskaya Street;

academic building at 33 Sheripova Street;

Federal State Budgetary Educational Institution of Higher Education "Kadyrov Chechen State University" has a certificate for the right of operational management of academic buildings. All certificates for the right of operational management are located on the official website of the University in the information and communication network Internet http://chesu.ru/sveden/objects/#anchor_purposePrac.

Each student during the whole period of study is provided with unlimited access to the electronic information and educational environment of the Federal State Budgetary Educational Institution of Higher Education " Kadyrov Chechen State University " both on the territory of the university and outside it.

The structure of electronic information and educational environment of the University includes: the official website of the university and a unified electronic educational system of the university's own development "U-Complex". EIEE provides: access to curricula, working programs of disciplines (modules), practices, publications of electronic library systems and electronic educational resources specified in the working programs; recording the progress of the educational process, the results of interim certification and the results of mastering the basic

educational program; formation of an electronic portfolio of students, including the storage of student works, reviews and evaluations of these works by the participants of the educational process; interaction between the participants of the educational process.

The list of educational-methodical and informational support for each discipline of the curriculum is given in the working program of the corresponding discipline. Functioning of the electronic information and educational environment of the Federal State Budgetary Educational Institution of Higher Education "Kadyrov Chechen State University" complies with the legislation of the Russian Federation.

6. CHARACTERISTICS OF UNIVERSITY ENVIRONMENT, PROVIDING THE DEVELOPMENT OF GENERAL CULTURAL (SOCIO-PERSONAL) AND SOCIO-PERSONAL COMPETENCES OF GRADUATES

The goals and objectives of the PEP program are personality-oriented and are implemented taking into account the needs and capabilities of all categories of students. Student-centered learning is realized through the organization of events aimed at forming the spiritual and moral qualities of personality: university-wide and city subbotniks; cultural events dedicated to significant events and holidays: Constitution Day, Fatherland Defenders Day, soccer matches, "Youth for Dialogue" forum, charity event "Every Enough", Youth Day, City Day, Labor Day, Chechen Woman Day, National Unity Day, etc.; social and psychological trainings of personal growth, etc.

Among the many significant activities dedicated to the spiritual and moral education of students, meetings with leaders of the clergy, meetings with representatives of the Ministry of Culture of the Chechen Republic, meetings of students with veterans of the Great Patriotic War, organization of events to prevent drug abuse and other forms of deviant behavior, etc. are regular.

To develop cognitive interest, the ability to respond quickly to changing conditions, expanding the horizons intellectual games are held: KVN and other cognitive games.

Mass physical education, sports and recreational work is an important part of physical education of students. The university has three gyms, as well as a TRP studio. There are two physical education and recreation complexes "Swimming Pool", the "Run after me" studio. Physical rehabilitation and health promotion of students is also possible at the sports and recreation center of Manas University.

The Student Sports Club has sections in a variety of sports: basketball, soccer, volleyball, weight lifting, chess, checkers, freestyle wrestling, judo, wushu, grappling. Every year the "Healthy Lifestyle" Student Competition is held. Student teams of the University sports club annually take part in off-site tournaments in basketball, soccer, mini-football, wrestling and judo. Close cooperation has been established with the National Collegiate Football League and the Student Basketball Association.

The United Council of Students at University functions in order to develop students' skills of self-government, civic culture, active citizenship, the development of their independence, self-organization and self-development abilities, training students to be competent and responsible participants in the life of society.

A big role in solving students' problems and in the social life of students is played by the Primary trade union organization of university students. The form of student government is actively developing. There is a United Council of University Students, which aims to achieve common goals by uniting the efforts of students, to participate in the development of local regulations and the implementation of state programs for the development of education and science, as well as improving the system of evaluation and quality control of education.

The coordinating, guiding body for educational work with students is the Department of Educational and Social Work of the University.

7. NORMATIVE-METHODOLOGICAL SUPPORT OF THE SYSTEM OF QUALITY ASSESSMENT OF STUDENTS' MASTERING OF THE EDUCATIONAL PROGRAM

In accordance with the FSES of Higher Education in the field of training 06.03.01 Biology the quality assessment of students' mastering of basic educational programs includes current monitoring of progress, interim and final state certification of students. Regulatory and methodological support of the current control of progress and interim certification of students on the educational program is carried out in accordance with the Federal Law of 29.12.2012 № 273-FL "On Education in the Russian Federation", the point-rating system approved by the University.

7.1 Funds of assessment tools for current and midterm control of progress and interim certification at the end of the discipline

Current control of learning of the core professional educational program is carried out during a semester in accordance with the University regulations "Forms, frequency and procedure of current control of progress and interim certification of students" (https://chesu.ru/sveden/files/Formy_periodichnosty_i_poryadok_tekuschego_kontrolya_uspevaemosti_i_promeghutochnoy_attestacii_obuchayuschihsya.pdf) and the Regulations on the point-rating system of evaluation of student performance https://chesu.ru/sveden/files/Pologhenie_o_ballyno-reytingovoy_sisteme.FR12.pdf).

Current control of students' progress is carried out for each discipline of the curriculum. To conduct current control various forms of control are used depending on the formed competencies and the specifics of the studied discipline.

Intermediate attestation of students is carried out at the end of the study of the discipline and has the form of credit, credit with grades or exam. If the discipline is designed for study in more than one semester, intermediate attestation is carried out at the end of each semester of the course, the form of certification is specified in the work program and the curriculum.

For current and boundary control and interim certification of the PEP program, funds of assessment tools (hereinafter the FAT) are developed. Assessment tools are developed in accordance with the requirements of the Regulations on the funds of assessment tools for interim and state certification of educational programs implemented in accordance with the FSES of higher education (training level - Bachelor's, Specialist, Master's, training of highly qualified personnel in graduate school, residency), approved by the Academic Council of the University on 01.04.2016 (Minutes № 3).

The FAT of disciplines includes standard control tasks or other materials, as well as assessment procedures necessary to assess the knowledge, skills and (or) experience, characterizing the stages of competence formation in the process of mastering the disciplines and practical training of the educational program. FAT are placed in the electronic educational environment of the university "U-Complex", access is made through the personal accounts of students.

7.2 Final (state final) certification

Final certification is mandatory and is carried out after the full development of the educational program.

State final certification of graduates who have mastered the educational program of higher education in the direction of training 06.03.01 Biology, profile "Microbiology", includes preparation for and delivery of the state exam and preparation for the defense procedure and the defense of the graduate qualification work. designed to determine the practical and theoretical preparedness of graduates to perform professional tasks established by the FSES of higher education in this direction of training.

State Final Certification is conducted by the State Examination Commission (SEC) headed by the Chairman approved by the Ministry of Science and Higher Education of the Russian Federation. The composition of the SEC is approved by order of the Rector of the HEI. At least 50 percent of the members of the State Examination Commission shall be employers or their representatives.

The requirements for the state final attestation are regulated by the Order of June 29, 2015 N 636 ((ed. from 27.03.2020) "On approval of the order of the state final attestation for educational programs of higher education - bachelor's programs, specialist's programs and master's programs" and the Regulations on state final attestation of graduates of FSBEI HE "Chechen State University", approved by the University Rector on 01.02.2016.

The Program of the State Final Attestation (SFA) consists of two parts and contains goals, objectives, requirements for the state examination and for the graduate qualification work (GQW), sample topics of undergraduate GQW, assessment criteria.

The topics of graduate qualification works are developed according to the profile "Microbiology" as well as taking into account the necessity of mastering competences in accordance with the requirements of the FSES of Higher Education in the field of 06.03.01 Biology.

Defense of the graduate qualification work is a mandatory type of state final certification of graduates of the University. Graduate qualification works for the qualification of a bachelor are performed in the form of a bachelor's thesis. The order of preparation and organization of graduate qualification works in FSBEI HE "Chechen State University" is regulated by the Order of preparation and organization of review of graduate qualification works in FSBEI HE "Chechen State University", approved by the Rector of the University on 01.02.2016.

8. OTHER REGULATORY AND METHODOLOGICAL DOCUMENTS AND MATERIALS THAT ENSURE THE QUALITY OF TRAINING OF STUDENTS.

Documents regulating individual issues of the organization of education and quality assurance of students at the University, including the annual self-evaluation reports are posted on the University website in the public domain (http://chesu.ru/sveden/document).

The policy in the field of quality of education conducted in Chelyabinsk State University is described in a set of the following corporate regulatory documents published on the web-portal of the University (https://chesu.ru/):

- Quality Assurance Policy. Organization Standard, approved by the Rector of the Federal State Budgetary Educational Institution of Higher Professional Education "Chechen State University" Z.A. Saidov 31.10.2019;
- Regulations on the internal system of quality assessment of educational activities, approved by the Rector of Federal State Budgetary Educational Institution of Higher Professional Education "Chechen State University" Z.A. Saidov 31.10.2019;
- Quality Manual, approved by the Rector of FSBEI HE "Chechen State University" Z.A. Saidov 30.01.2020.

The Program is subject to periodic (annual) modernization in accordance with the Regulations of the main educational program of higher education - Bachelor's, Specialist's and Master's Degree: Regulation on the core educational program of higher education - Bachelor's, Specialist's and Master's programs in FSBEI HE "Chechen State University", approved by Rector Z.A. Saidov 28.09.2017r.

LIST OF CPEPHE DEVELOPERS

No. n/a	Full name	Position
1.	Dokhtucaeva Aina Magomedovna	Acting Head of Chair of Cell Biology, Morphology and Microbiology Ph.
2.	Zura Isanovna Bisultanova	Lecturer of the Chair of Cell Biology, Morphology and Microbiology Ph.