

MINISTRY OF SCIENCE AND HIGHER EDUCATION OF THE RUSSIAN FEDERATION Federal State Autonomous Educational Institution of Higher Education

### «Far Eastern Federal University»

(FEFU)

ADVANCED ENGINEERING SCHOOL «INSTITUTE OF BIOTECHNOLOGY, BIOENGINEERING AND FOOD SYSTEMS»

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#### WORKING PROGRAM OF EDUCATION

DIRECTION OF PREPARATION 19.04.01 Biotechnology Master's program Agri-food biotechnology Graduate Qualification - Master

Full-time form of education Normative period for mastering the program (full-time education): 2 years Starting year of preparation: 2021

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#### **1. General provisions**

1.1. A real working parenting program (hereinafter - the Work Program, the Education Program) defines a set of basic characteristics of educational activities carried out as part of the implementation of the main professional educational program (hereinafter - OBEP HE).

The education program is a value-normative, methodological, methodological and technological basis for the organization of educational activities at the present stage of development of the University.

The scope of the Work Program is the educational and socio-cultural space, the educational and upbringing environment of the Far Eastern Federal University (hereinafter - FEFU / University) in their unity and interconnection, as well as the educational process in the main professional educational programs.

The program is focused on organizing the educational activities of the subjects of the educational process.

Education in educational activities should be systemic, planned and continuous. The main means of carrying out such activities is the educational system, the corresponding working program of education and the calendar plan of educational work.

Education is an activity aimed at personal development, creating conditions for self-determination and socialization of students on the basis of socio-cultural, spiritual and moral values and the rules and norms of behavior adopted in Russian society in the interests of a person, family, society and the state, the formation of a sense of patriotism and citizenship among students, respect for the memory of the defenders of the Fatherland and the exploits of the heroes of the Fatherland, law and order, working people and the older generation, mutual respect, respect for the cultural heritage and traditions of the multinational people of the Russian Federation, nature and the environment.

1.2. The work program was developed in the manner prescribed by part 6 of article 26 of the Federal Law of December 29, 2012 No. 273-FZ "On Education in the Russian Federation", local regulations of the FEFU.

In developing this Work Program the following regulatory documents have been used:

- the Constitution of the Russian Federation;

- Federal Law No. 273-FZ of December 29, 2012 "On Education in the Russian Federation";

- Federal Law No. 15-FZ dated February 5, 2018 "On Amendments to Certain Legislative Acts of the Russian Federation on Volunteering (Volunteering)";

- Decree of the President of the Russian Federation No. 204 dated May 7, 2018 "On National Goals and Strategic Objectives for the Development of the Russian Federation for the Period up to 2024";

- Decree of the President of the Russian Federation of May 9, 2017 No. 203 "On the Strategy for the Development of the Information Society in the Russian Federation for 2017-2030"; - Decree of the President of the Russian Federation of December 31, 2015 No. 683 "On the National Security Strategy of the Russian Federation";

- Decree of the President of the Russian Federation of December 24, 2014 No. 808 "On approval of the Fundamentals of State Cultural Policy";

- Decree of the President of the Russian Federation of December 19, 2012 No. 1666 "On the Strategy of the State National Policy of the Russian Federation for the period up to 2025";

- Decree of the Government of May 29, 2015 No. 996-r "Strategy for the development of education in the Russian Federation for the period until 2025";

– Decree of the Government of November 29, 2014 No. 2403-r "On approval of the Fundamentals of the State Youth Policy of the Russian Federation for the period up to 2025";

- Decree of the Government of the Russian Federation of December 26, 2017 No. 1642 "On Approval of the State Program of the Russian Federation "Development of Education";

– Methodological recommendations on the creation and activities of councils of students in educational organizations (letter of the Ministry of Education and Science of the Russian Federation dated February 14, 2014 No. VK-262/09);

– Address of the President of the Russian Federation to the Federal Assembly dated January 15, 2020;

- letter of the Ministry of Science and Higher Education of the Russian Federation dated April 8, 2021 No. MN-11 / 311-ED "On the direction of methodological materials" (with annexes).

1.3. This Program uses the following terms, definitions and abbreviations:

- FEFU, University - Far Eastern Federal University;

- OPOP VO - the main professional educational program of higher education - a bachelor's program, a specialist's program, a master's program, a residency program, an assistant-internship program;

- Work program, Program - a work program for the education of FEFU.

1.4. The working program of education has been developed in the traditions of domestic and world pedagogy, taking into account modern educational practice and the socio-cultural context, which requires a constant search for new methods and forms of education, dynamic "reconfiguration" in a constantly changing world. Based on the traditional values of the University and their preservation, the Work Program is simultaneously focused on the development of the system of values and traditions of the university community in accordance with the trends of social development, scientific and technological breakthrough, digital transformation, and new challenges. In the dynamically changing conditions of the modern world, the search for new approaches to educating students in the spirit of peace, dignity, tolerance, freedom, equality, solidarity, openness, readiness for constant change is of particular importance.

The program is based on the principle of continuity and consistency with the goals and content of state upbringing programs in the education system.

The upbringing program is part of the main higher education program, developed and implemented in accordance with the current federal state educational standard and the educational standard independently developed and approved by FEFU.

1.5. In the event of situations not covered by this Program, the norms of the current legislation of the Russian Federation in the field of education are applied.

1.6. Documents generated during the implementation of this Program are stored in structural units at the place of origin in accordance with the approved nomenclature of cases in the manner prescribed by FEFU. Responsibility for document management rests with the heads of the relevant structural units.

#### 2. Provisions of the Work Program

## 2.1. Conceptual and value bases and principles of organization of the educational process

In the Federal Law of December 29, 2012 No. 273-FZ "On Education in the Russian Federation", education is defined as "a single purposeful process of upbringing and education, which is a socially significant good and is carried out in the interests of a person, family, society and the state, as well as a set of acquired knowledge, skills, values, experience of activity and competence of a certain volume and complexity for the purpose of intellectual, spiritual, moral, creative, physical and (or) professional development of a person, satisfaction of his educational needs interests and . Thus, education is an integral part of education, and the educational process at the University cannot be implemented separately from the educational process as a whole, in isolation from the learning process. At the same time, education, as an integral part of an organically unified educational process, can have its own goals, objectives, directions and forms of work, forms of student activity.

The conceptual basis for the formation and development of the upbringing system within the framework of the developed program is the understanding of upbringing as an activity aimed at developing the personality of students, creating conditions for their self-determination and socialization as citizens and professionals based on socio-cultural, spiritual and moral values and the rules adopted in Russian society and norms of behavior in the interests of a person, family, society and the state, the formation of a sense of patriotism, citizenship, respect for the memory of the defenders of the Fatherland and the exploits of the heroes of the Fatherland, law and order, the worker and the older generation, professionalism, mutual respect, respect for cultural heritage and traditions of the multinational people of the Russian Federation and other peoples, nature and the environment.

Values as moral, moral attitudes, traditions and beliefs are the foundation for understanding the essence of man, his development and being.

The highest values are the value of life and the value of a person as the main meaning of humanity, which is to live and create. The active role of students' values is manifested in their worldview through a system of value-semantic guidelines and attitudes, principles and ideals, views and beliefs, attitudes and criteria for assessing the world around them, which together form the normative and regulatory mechanism of their life and professional activities.

In accordance with the documents defining the state policy of the Russian Federation in the field of education, the Program is focused on the spiritual and moral values traditional for the Russian society:

- the priority of the spiritual over the material;

- protection of human life, human rights and freedoms;

- family, creative work, service to the Fatherland;

– norms of morality and ethics, humanism, mercy, justice, mutual assistance, collectivism;

- the historical unity of the peoples of Russia, the continuity of the history of our Motherland in the context of world history.

The principles of organizing the educational process within the framework of the developed program:

- the principle of consistency and integrity, taking into account the unity and interaction of the components of the educational system (infrastructural, content, procedural and organizational);

- the principle of subject-subject interaction in the system "student - teacher, employee", "teacher - academic group", "student-student";

- the principle of the priority of initiative, independence, self-realization, responsibility of students in educational and extracurricular activities, social partnership in the joint activities of participants in the educational process;

- the principle of co-management as a combination of administrative management and student self-government, the variability of directions and forms of educational activities;

- the principle of individual approach and natural conformity (as taking into account in the educational process the individual characteristics of the individual and the zone of proximal development), the priority of the value of health and safety of participants in educational relations, tolerance, mutual respect and sociopsychological support of the individual and ensuring a favorable sociopsychological climate in the team;

- the principle of cultural conformity of the educational environment, the value-semantic content of the content of the educational system and organizational culture of the Advanced Engineering School "Institute of Biotechnology, Bioengineering and Food Systems", the humanization of the educational process;

- the principle of compliance of the goals of improving educational activities with the available and necessary resources;

- the principle of openness as susceptibility to the challenges and demands of the external and internal environment of the University, new forms and methods of activity, readiness for constructive interaction and cooperation, both in the internal and external environment;

- the principle of information openness, completeness of information exchange, taking into account the unity and interaction of direct and feedback.

## 2.2. Methodological approaches to the organization of educational activities

The working program of OBEP HE education is based on a set of methodological approaches, including: axiological (value-oriented), systemic, competence-based, cultural, problem-functional, research, project, resource, health-saving and informational approaches.

2.2.1. Axiological (value-oriented) approach , which has a humanistic orientation and assumes that the management of the educational system of the University is based on creative, socially oriented activities, which in its axial basis rely on strategic values (the value of human life and health; spiritual and moral values; social values; the value of communication, contact and dialogue; the value of development and self-realization; the value of the experience of independence and the value of professional experience; the value of friendship; the value of freedom and responsibility, etc.), which are of particular importance and contribute to the unification, creation of people who share these values .

2.2.2. A systematic approach, which involves considering the educational system of the University as an open socio-psychological, dynamic, developing system, and also allows you to establish the level of integrity of the educational system of the University, the degree of interconnection of its subsystems in the educational process, aimed at the end result of the active creative educational activities of the teaching staff.

2.2.3. *Competence-based approach* involves focusing on the development of the personal and professional qualities of the student with the help of which he will be able to realize himself in a continuously developing world.

2.2.4. *The culturological approach*, which contributes to the implementation of the cultural orientation of education and upbringing, allows us to consider the content of educational and extracurricular activities as a generalized culture in the unity of its axiological, system-activity and personal components. The culturological approach is aimed at: creating a favorable multicultural environment and organizational culture in FEFU; to improve the general culture of students, the formation of their professional culture, the culture of research, the culture of creative work.

2.2.5. *The problem-functional approach* allows for goal-setting, taking into account the identified educational problems and topical issues in the development of the educational environment of the University, to consider the management of the system of educational work of FEFU as a process (a continuous series of interrelated, performed simultaneously or in some sequence of management functions (analysis, planning, organization, regulation , control) aimed at achieving certain goals).

2.2.6. *The research approach* considers educational work at the University as an activity that has a research basis and includes a variable set of methods of a theoretical and empirical nature.

2.2.7. *The project approach* involves the resolution of existing social and other problems through individual or joint project activities of students under the

guidance of a teacher or mentor, which contributes to: socialization of students in solving project tasks related to meeting the needs of society; mastering new forms of search, processing and analysis of information; development of analytical and critical thinking skills, communication skills and the ability to work in a team. Project technology has a social, creative, research, motivational and practiceoriented orientation.

2.2.8. *The resource approach* takes into account the willingness of the university to implement the system of educational work through legal, personnel, financial, information, scientific, methodological, educational, methodological and logistical support.

2.2.9. *Health-preserving and health-creating approaches* are aimed at improving the culture of health, preserving the health of participants in educational relations, which involves active subject-subject interaction of members of the FEFU team: to create a health-forming and health-preserving educational environment, to change the internal position of the individual in relation to health to a consciously responsible one, to develop individual style of health-building activity of students and teachers, development and organization of health-building activities and methodological arsenal of health-saving activities, updating and implementation of a healthy lifestyle.

2.2.10. *The informational approach* considers educational work at the University as an informational process consisting of specific operations: collecting and analyzing information about the state of the controlled object; transformation of information; transfer of information, taking into account the adoption of a managerial decision. This approach is implemented through constant updating of objective and adequate information about the system of educational work in FEFU, its transformation, which allows you to determine the current level of the educational system of the university and have a clear idea of how to correct the situation.

2.2.11. An individual-oriented (personalized) approach takes into account the individual characteristics of development, needs, living conditions and situations of individual students or groups of students. This approach involves the development and implementation of individual programs and plans of work with target groups of students, including those who have shown talents and achieve outstanding academic success, results in research, design, sports, creative, social activities, as well as the creation of a system of their tutoring and psychological pedagogical support, social support.

## 2.3. Purpose, directions and tasks of educational activities and educational work

The purpose of educational work is the formation and development of a unified university environment that provides conditions for the active involvement of students, staff and teachers in purposefully organized activities in order to develop their moral, intellectual, cultural, professional, research, creative and physical potential, creative socially significant activities.

The main directions of educational activities within the framework of the

developed program:

- activities aimed at personal development, creating conditions for selfdetermination and socialization of students;

- activities aimed at preserving and enhancing the best traditions of FEFU, Russian students, fostering a sense of university solidarity, ideas about the prestige of university education;

- activities aimed at creating a corporate culture that defines a system of values that unites students, teachers and staff of FEFU in achieving common goals and realizing the mission of the University;

- activities aimed at developing in students a sense of patriotism, citizenship, cooperation and solidarity with other peoples;

- activities aimed at developing in students a sense of respect for the memory of the defenders of the Fatherland and the exploits of the heroes of the Fatherland;

- activities aimed at developing students' respect for the worker and the older generation;

- activities aimed at developing students' respect for law and order;

- activities aimed at developing in students a careful attitude to the cultural heritage and traditions of the multinational people of the Russian Federation;

- activities aimed at forming students' behavior in accordance with generally accepted rules and moral and ethical standards, in the interests of a person, family, society and the state;

- activities aimed at the formation and development of professionally significant qualities, relevant and demanded by the labor market overprofessional skills and competencies;

- activities aimed at the formation and development of research and design thinking, personal experience in research and project activities;

- activities aimed at the formation of a careful and creative attitude towards nature and the environment among students;

- activities aimed at humanizing the style of communication and working interaction of students with teachers and staff of FEFU;

- activities aimed at the formation of a culture of a healthy lifestyle;

- activities aimed at preventing the destructive behavior of students.

The main directions of education in the Advanced Engineering School "Institute of Biotechnology, Bioengineering and Food Systems" are: spiritual and moral, civil, patriotic, professional (including labor and scientific and educational), environmental, physical education and the formation of a culture of health. Along with the above, other types of education can be implemented that do not contradict the goal of educational work.

Tasks in the field of spiritual and moral, civil, patriotic education:

- development of moral qualities, such as honor, duty, justice, mercy, mutual assistance, friendliness, empathy and a positive attitude towards people, including those in need of special care (people with disabilities who find themselves in difficult life situations);

- development of a sense of patriotism and pride in their homeland; readiness to protect the interests of Russia;

- the formation and development of a responsible civic position among students based on the traditional cultural, spiritual and moral values of Russian society;

- formation of commitment to the ideas of equality of rights, friendship, mutual understanding, including in the field of interethnic communication;

- development of interest and respect for languages, national dignity, traditions, feelings, beliefs of people.

Tasks in the field of professional education (including labor and scientific and educational education):

- formation of professional self-awareness, understanding of the social significance and value of high professionalism, work and its results;

- formation of a personal need for continuous learning and selfdevelopment, readiness to master new areas of activity and competencies, constant changes in industries and areas of activity;

- creating conditions for the development of students' personal qualities and attitudes (responsibility, discipline, self-management), social skills (emotional intelligence, orientation in the information space, speed of adaptation, communication; ability to work in a team) and managerial abilities (skills to make decisions in conditions of uncertainty and change, time management, leadership, critical thinking) that contribute to their successful professional activities;

- ensuring the availability of programs aimed at the formation of in-demand cross-professional skills, both in educational and extracurricular activities;

- development of a system of mass involvement of students in research and project activities as the most important condition for the manifestation of abilities, the identification and development of talents, the development of project and research ways of thinking and activity.

Tasks in the field of environmental education:

- development of a careful and creative attitude towards nature, material and spiritual values of Russia and the world among students;

- development of "environmental consciousness".

<u>Tasks in the field of physical education and the formation of a culture of health:</u>

- formation of a culture of physical improvement, a value attitude to health as a basic condition for the quality of life and successful activity;

- formation of skills of safe behavior in the physical and information space;

- formation of a culture of environmentally friendly communication, competencies of constructive behavior in conflicts and their resolution;

- the formation of stable personal attitudes of rejection of any types of destructive behavior, addictions, self-destructive actions;

- the formation of sustainable skills to maintain, preserve and create health, optimal physical fitness.

Achieving the stated goals and solving the problems of education is carried

out through the appropriate content, methods, forms of work both in the implementation of basic educational programs, and in extracurricular, social, administrative, organizational, managerial and other areas of activity of the Advanced Engineering School "Institute of Biotechnology, Bioengineering and food systems."

#### **3.** Content and conditions for the implementation of educational work

## **3.1. Educational (educational) environment of the Advanced Engineering School "Institute of Biotechnology, Bioengineering and Food Systems"**

The main educational tool at the Advanced Engineering School "Institute of Biotechnology, Bioengineering and Food Systems" is the educational environment - a systematically formed self-developing and self-regulating open space, characterized by a combination of traditionally established historical influences and purposefully created pedagogical and organizational conditions and circumstances aimed at developing the personality of each student taking into account its individual characteristics and educational needs. The educational environment of the Advanced Engineering School "Institute of Biotechnology, Bioengineering and Food Systems" is considered as:

- an open subsystem of the global socio-cultural environment, which is influenced by the totality of world socio-cultural processes;

- a territorially and event-limited set of influences and conditions for the formation of a personality, which is the main factor in the internal and external psychosocial and sociocultural development of a personality;

- a space for creative activity, communication, norms and rules, various events, relationships arising in them, demonstration of achievements.

The educational environment of the Advanced Engineering School "Institute of Biotechnology, Bioengineering and Food Systems" and the educational environment as its subsystem have signs of cultural conformity, axiological, adaptability, health creation and health preservation, reflexivity, bilingualism, multiculturalism, safety, etc. Modern sociocultural, including informational, the context that influences the current state and development of the educational environment of the school is taken into account when developing programs and plans for educational work. The educational environment of the school is considered in the Program as part of the socio-cultural space - the space developed by society for the distribution of a certain area of culture. The openness of the educational environment of the school implies the potential use in the education of students of the entire socio-cultural space of the city of Vladivostok, Primorsky Krai, the Far Eastern Federal District, as well as on a wider scale - Russia, the world. The quality of the socio-cultural space determines the level of involvement of school students in active social relations. The main mechanism is network interaction, social partnership with a wide range of organizations and objects external to FEFU, participation of students in educational projects and events conducted by network and social partners.

The educational environment is created both offline and online. When

implementing educational work programs and calendar plans for educational work, current traditional, modern and innovative educational technologies, digital technologies are used, both with limited and free access to educational content.

In the educational environment of the Advanced Engineering School "Institute of Biotechnology, Bioengineering and Food Systems", the following components are conditionally distinguished, which have an equal high educational significance:

- spatial (architectural and aesthetic organization of living space);

- symbolic (material and non-material symbols of the University: coat of arms, anthem, emblem, traditions, etc.);

- content-methodical (concepts of training and education, educational programs, educational materials and their content, forms and methods of organizing education);

- information and communication (distribution of statuses and roles, crosscultural interaction, style and culture of communication and teaching, forms and regulations of communication);

- organizational and managerial (organizational conditions, features of organizational and managerial culture, the presence of creative associations, initiative groups, etc.);

- activity (types and forms of activity, level of involvement and activity).

#### **3.2.** The main types of educational activities of students:

- design;

volunteer (volunteer);

- educational and research and research;

- student international cooperation;

- activities of student associations;

- leisure, creative and socio-cultural activities for the organization and holding of socially significant events and activities;

- career guidance;

- educational (including cultural and educational, scientific and educational);

- involvement of students in entrepreneurial activities;

- involvement of students in self-government, the system of managerial decision-making, activities to solve development problems and current tasks of the life of FEFU;

- physical culture and sports and health-improving activities;

- informational;

- activities to develop professional skills and competencies;
- activities to develop cross-professional skills and competencies;
- other activities.

#### **3.3.** Basic forms and methods of educational work

In the system of education within the framework of the implementation of

the OBEP HE, a combination of humanistic and pragmatic approaches is used.

The pragmatic approach (*J. Dewey, W.H. Kilpatrick, etc.*) has proved in practice its effectiveness in solving the problems of preparing students for productive actions in the system of established norms and rules, both in the present and in the future. One of its features is the focus on the requirements of practice and an individual approach to each student in the context of his future career goals. A pragmatic (instrumental) approach to education makes it possible to effectively promote the adaptation of students both in the university environment and in society as a whole, the successful start of their future career, their own business, the smoothest possible transition from education to the sphere of work and employment.

The humanistic approach (*Y. Korchak, Sh. Amonashvili, V. Sukhomlinsky, V.A. Slastenin, V.V. Serikov*) ensures the supremacy of the rights and freedoms of the subjects of the educational process, the satisfaction of educational, spiritual, cultural, vital needs and demands; value-semantic development of the student's personality; help in solving life problems; support for individuality. The humanistic approach considers students as independent subjects of the educational system, and upbringing and education in general - as a process of subject-subject interaction. The subjective role of students in this case implies not only their active actions and personal responsibility for the process and results of their development, the results of their own behavior, actions and actions, but also the possibility of students influencing the development of cultural and moral norms of the university environment.

The combination of humanistic and pragmatic approaches to the upbringing educational program, persons mastering the taking into account of psychophysiological characteristics, personal needs and legal status, allows us to define the upbringing process as a joint activity with students for the purposeful formation and dynamic development of the educational environment that creates conditions for individually-oriented personal development in context established by this Work Programme. At the same time, mentoring and partnership are recognized as the main target methods of subject-subject interaction in the educational system of the University (student-teacher, employee; student-student).

The methods of education in the Work Program mean both the ways of the educational impact of the educational environment of FEFU, and the ways of professional interaction of teachers and other employees with students in order to solve educational problems. The most important task is to search for new methods that are consistent with the current socio-cultural context, the constant reconfiguration of the methodological base of education for the dynamically changing conditions of the external and internal environment. At the same time, special attention is paid to the possibilities of the digital environment, the high educational potential of which is obvious today, but is still insufficiently demanded by the professional pedagogical community.

The forms of organization of educational work are understood as various options for organizing a specific educational process, in which the goal, objectives, principles, patterns, methods and techniques of education are combined and

combined. Specific activities and projects of educational orientation with their key characteristics are reflected in the annually formed and approved calendar plans for educational work. The forms of organization of educational work are determined through a set of characteristics that describe specific activities:

1) directions of education, which correspond to the key theme of the event;

2) educational tasks to be solved;

3) the main activity of students;

4) basic format (competition, competition, concert, performance, forum, seminar, conference, festival, talk show, panel discussion, discussion, game, trip, lecture, conversation, excursion, etc.);

5) conducting mode (online, offline, mixed);

6) the role of students, teachers and other employees (initiators, organizers, participants);

7) the number of students involved in the event (total, as initiators, as organizers, as participants);

8) Scale:

individual (subject-subject interaction);

- group (student group, creative team, sports team or section, club, student association, circle, etc.);

- mass (festivals, olympiads, championships, concerts, holidays, subbotniks, etc.);

9) regularity (single, traditional);

10) organizational level: program (within the framework of an educational program or area of training), school, university, city or municipal, regional, interregional, all-Russian, international;

When characterizing activities, the calendar plans for educational work also reflect: the date (terms) of the implementation; time (period) of the event; location; supervising department; The contact person.

The calendar plan of educational work is a list of specific activities in conjunction with their description. To form a calendar plan for educational work and control its implementation, tools of the digital educational environment can be used, among other things.

<u>Civil, patriotic, spiritual and moral education is implemented through the</u> <u>following key forms and methods of educational work:</u>

- public assessment of the compliance of students' behavior with moral standards, including through public approval and encouragement of the best examples of such behavior;

- participation of students in solving socially significant problems of the University, city, region, country;

- organizational and methodological support and resource support for the initiatives of students, teachers and other employees in the field of patriotic education;

- constant development of the content and high quality of teaching disciplines that provide students with orientation in modern socio-political

processes, the conscious development of their own position in relation to them based on deep knowledge and understanding of the history of Russia and the world, spiritual values, achievements and the role of Russia in world processes;

- the study of state symbols of Russia, such as the coat of arms, flag, anthem, the heroic past, historical symbols and monuments of the Fatherland, the formation of respect for them;

- study of symbols, traditions, history of the University;

- development of search and research activities of students, cognitive and search youth tourism, aimed, among other things, at studying the Far East, the historical past of Russia, the exploits of the heroes of the Fatherland;

- implementation of civil-patriotic and military-patriotic projects, research and design work on relevant topics;

- development of culture and forms of interethnic communication;

- development of a culture of volunteerism, including through the inclusion of relevant disciplines, modules and practices in the main educational programs;

- providing assistance and comprehensive support to students in difficult life situations (social, material, psychological and pedagogical, consulting);

- promoting the formation of an understanding of the value of the family and responsible parenthood, including through educational work and support for student families;

- formation of a legal and political culture, including through the constant development of the content and high quality of teaching of relevant disciplines and modules, a system of mediation and legal assistance;

- development of forms of constructive participation of students in decision-making, forms of their participation in self-government and socially useful activities;

- promoting the formation of a conscientious responsible attitude to their own educational, extracurricular and social activities at the University;

- formation both in the educational process of the main educational programs and in extracurricular activities of a stable system of moral and semantic attitudes of the personality of students, allowing them to effectively resist the ideology of extremism, nationalism, xenophobia, corruption, discrimination on any grounds and any other destructive social impact;

- ensuring the availability of fiction, cultural events and objects (concerts, performances, film screenings, exhibitions, etc.);

- creation of conditions for creative trials and self-realization in various forms of artistic creativity, performing arts;

- development of forms of cultural leisure for students, cultural education and support of initiatives in this area.

<u>Professional (including labor and scientific and educational) education is</u> <u>implemented through the following key forms and methods of educational work:</u>

- promotion of professional self-determination through the systematic acquisition of knowledge and information about the development of industries, the professional sphere, the sphere of labor and employment, the organization of

practices and internships;

- creation of opportunities for the formation of a wide range of professional, cross-professional, digital, entrepreneurial, research, design and other competencies, including those outside the main educational program;

- creation of opportunities for the formation of individual educational trajectories and development routes based on individual needs and requests;

- development of information culture, digital competencies;

- creation of conditions for the systematic receipt by students of reliable information about advanced achievements and research directions in world and domestic science;

- creation of conditions for the formation of research and project competencies for all, without exception, students in the educational program of higher education;

- organization of comprehensive (methodological, personnel, organizational, financial) support for the participation of students in scientific research and project activities under the guidance of scientific and pedagogical workers and partner organizations, participation in professional research teams;

- organizing the participation of students in various forms of scientific communication (conferences, exhibitions, seminars, forums, publications, etc.);

- promoting the formation of students' respect for work, professional achievements, including through systemic communication with successful graduates, representatives of the professional sphere, information about the best examples and achievements;

- promoting the development of teamwork skills through participation in projects of various directions, both within the framework of the main educational program and in extracurricular activities;

- participation of students in career guidance work with schoolchildren;

- organizing the provision of "professional services" to students in other areas, FEFU departments under the guidance of mentors from among teachers and experienced specialists (legal clinic, medical volunteers, financial literacy training, psychological support services, sociological research, etc.);

- assistance in the formation of positive life guidelines and plans, including through participation in project and research activities, programs and events for professional self-determination and a successful career start;

- ensuring the practice orientation of the content of basic and additional educational programs;

– continuous improvement of the quality of practical training within the framework of the main educational program.

Environmental education is implemented through the following key forms and methods of educational work:

- participation in research and projects on environmental topics;

- implementation of environmental content within the disciplines, modules, practices in the main educational program;

- training in the skills of "lean production", reasonable environmental

management and use of various types of resources, including through the introduction of environmental principles into the organization of the social sphere of the FEFU campus;

- participation in projects, promotions, environmental events.

Physical education and the formation of a culture of health is implemented through:

- providing maximum opportunities for physical education and sports in the space of FEFU to all students, including students with disabilities;

- popularization of sports and a healthy lifestyle as key basic competencies for successful activities in the present and future;

- organization of prevention of diseases and accidents with students;

- organization of monitoring the health status of students and providing them with high-quality and affordable primary health care;

- development of a culture of safe behavior in future professional activities and life, in educational, extracurricular, social and other areas of activity of students, including by creating the necessary infrastructure conditions, establishing rules of conduct and a system for monitoring their implementation;

- organizing the prevention and prohibition of tobacco smoking or the consumption of nicotine-containing products, the use of alcoholic, low-alcohol drinks, beer, narcotic drugs and psychotropic substances, their precursors and analogues, other intoxicating substances and the development of various kinds of addictions;

- promotion of mass physical culture and sports events and projects for students;

- development of self-organization and self-regulation skills;

- development of a culture of communication in the information environment, skills to protect against unwanted information.

#### **3.4.** Resource support for the implementation of the Work Program

Resource support for the implementation of the working program of education at the Advanced Engineering School "Institute of Biotechnology, Bioengineering and Food Systems" includes the following types:

- legal support - a system of normative local acts of FEFU that regulate the processes of educational work and educational activities of FEFU;

- staffing - scientific and pedagogical, administrative and managerial and other employees of the school who directly interact with students by the nature of their professional activities and official duties. Employees of the teaching staff involved in the implementation of the main educational program, the headmaster and his deputy for educational work, within the framework of their official duties, organize and implement educational work, are responsible for its results at the appropriate level of its implementation. Continuous improvement in the quality of staffing of educational work is ensured by systematic training and advanced training in the field of education, the quality of the information and communication environment of education, the participation of employees in the development of regulatory and methodological documents, plans and programs of educational work;

- financial support - the amount of funding annually allocated to the FEFU budget for the organization and implementation of educational work, including the wages of employees involved in the implementation of the Work Program, taxes, as well as funds for the implementation of educational projects and events with the participation of students, as well as funds for the transferred goals attracted from sources external to the University;

- infrastructure support - fully includes the objects of material and technical support and equipment of the educational process.

#### 4. Management of the system of educational work and monitoring the quality of the organization of educational activities

#### 4.1. Educational system and management system of educational work

The educational system is an integral complex of educational goals and objectives, areas of educational work, human resources that implement them in the process of purposeful activity, and relations that arise between the participants in the educational process.

The main tool for managing educational work is the Work Program and the calendar plan for educational work.

The main functions of managing the system of educational work at the Advanced Engineering School "Institute of Biotechnology, Bioengineering and Food Systems" are:

- *analysis* of the results of educational work for the past calendar / academic year;

- *planning* educational work for the current calendar/academic year, taking into account the results of the analysis of past periods and current tasks of education, changes in the internal environment and external socio-cultural context;

- *organization* of educational work on the basis of approved programs and plans;

- regulation and administration of educational work;

- *monitoring and control* of the implementation of work programs and plans for educational work, management decisions in the field of education.

# 4.2. Student self-government (co-management) at the Advanced Engineering School "Institute of Biotechnology, Bioengineering and Food Systems"

Student self-government (co-management) is an independent (but controlled by the school authorities) social activities of students and the function of a group of students in which their right to internally organized management of their life is realized, including planning, organization, regulation, control and analysis of the results of activities.

The purpose of student self-government is to create conditions for the manifestation of the abilities and talents of students, self-realization of students

through various types of activities (project, volunteer, educational and research and research, student international cooperation, activities of student associations, leisure, creative and socio-cultural, participation in organizing and holding significant events and activities, participation in career guidance and entrepreneurial activities, etc.).

The main tasks of student government at the Advanced Engineering School "Institute of Biotechnology, Bioengineering and Food Systems" are:

1) protection and representation of the rights and interests of students;

2) assistance in the implementation of socially significant initiatives of students;

3) involvement of students in the formation of their own educational trajectory and solving issues related to the training of highly qualified specialists;

4) support for the functioning and development of student associations;

5) development of proposals for improving the quality of the educational process, taking into account the scientific and professional interests of students;

6) preparation of initiatives and proposals of the school administration to state authorities and public associations on issues affecting the interests of students and topical issues of social development;

7) assistance to the school administration in solving educational and scientific problems, organizing leisure and life of students, promoting a healthy lifestyle;

8) assistance to the structural divisions of the school in the organization of the educational process, as well as in the implementation of their activities within the framework of the educational process;

9) carrying out work aimed at raising the awareness of students and their exactingness to the level of their knowledge, patriotic attitude to the spirit and traditions of the school;

10) informing students about the activities of the school;

11) strengthening interuniversity, interregional and international relations;

12) preservation and development of democratic traditions of students.

## **4.3.** Monitoring the quality of educational work and the conditions for the implementation of educational activities

The implementation of the Work Program contributes to the achievement of *external* - quantitative, having formalized indicators, and *internal* - qualitative, not formalized, meaningful.

Ways to assess the achievability of *the results of educational activities* at the personal level can be:

- methods for diagnosing the value-semantic sphere of a person and selfassessment methods, other psychological and pedagogical methods adequate to the subject of research;

- questioning and conversation;

- analysis of the results of educational, project, research, sports, cultural, creative, social activities of students;

- analysis of the electronic portfolio of students, etc.

The key indicators of the effectiveness of the quality of *educational work and the conditions for the implementation of the content of educational activities* can be: the quality of resource support for the implementation of educational activities; infrastructure quality; the quality of the educational environment and the educational process; the quality of management of the system of educational work; the quality of student government. The actual state of the indicators is assessed during the annual planned, if necessary, unscheduled monitoring. When conducting monitoring, as a rule, qualitative and quantitative methods of sociological research, expert assessments, tools of the FEFU digital environment are used. To develop and approve the plan, indicators and monitoring tools, annually by order of the rector or other authorized person, a special commission is created with the participation of leaders, faculty members, representatives of the FEFU Joint Council of Students.

#### 5. Work program management

5.1 It is the document holder's responsibility to keep this Program up to date.

5.2. Script in this Program is stored at the Faculty of Agro-Food Technologies and Food Engineering of the Advanced Engineering School "Institute of Biotechnology, Bioengineering and Food Systems".

5.3. Control over the fulfillment of the requirements of this Program rests with the holder of the document.

#### MINISTRY OF SCIENCE AND HIGHER EDUCATION OF THE RUSSIAN FEDERATION Federal State Autonomous Educational Institution of Higher Education **«Far Eastern Federal University»**

#### (FEFU)

ADVANCED ENGINEERING SCHOOL «INSTITUTE OF BIOTECHNOLOGIES, BIOENGINEERING AND FOOD SYSTEMS»

#### CALENDAR SCHEDULE EDUCATIONAL WORK

#### **DIRECTION OF PREPARATION**

19.04.01 Biotechnology Master's program Agri-food biotechnology

Graduate Qualification - Master

Full-time form of education Normative period for mastering the program (full-time education): 2 years Starting year of preparation: 2021

> Vladivostok 2021

#### Calendar plan for educational work with FEFU students for 2021-2022

			/ Event Level/ events	Event/event format		Event	type					
N 0 P /	Directions of educational work	Event title/ events			Educational work within the OBOR		educate work outside the BRI	Date of event/event	Venue/ events	Estimated coverage of the number of participants	Planned budget	Responsible person for the event / events
р					Yes/ No	Numb er of hours	Not really					
		Jurisprudence	FEFU, curriculum discipline	Lectures, practical classes	Yes	36	No	Fall semester 2 courses, during the semester	FEFU	Academic group	Budget within the framework of the EP for interfaculty	Department of Theory of State History and Law, FEFU
	civil	Citizenship in modern society	NSP Academic Group	curated hours	No	-	Yes	February- March 2022	FEFU	Academic group	No budget provided	Head of EP, curator
		No corruption	NSP Academic Group	curated hours	No	-	Yes	May-June 2022	FEFU	Academic group	No budget provided	Head of EP, curator
		Story	FEFU, curriculum discipline	Lectures, practical classes	Yes	54	No	Fall semester of the 1st course, during the semester	FEFU	Academic group	Budget within the framework of the EP for interfaculty	Department of History and Archeology of FEFU
	Patriotic	History of the development of world and domestic biotechnology / History of the development of the food industry	FEFU, curriculum discipline	Lectures, practical classes	Yes	54	No	Spring semester of the 1st course, during the semester	FEFU	Academic group	Budget within the OP	NSP
		I remember, I'm proud!	NSP	Lecture- discussion, poster presentations	No	-	Yes	May 2022	FEFU	NIS undergraduate students	10 000 rub.	Dubnyak Ya.V., Chernyshova A.N.
	Spiritual and moral	Philosophy	FEFU, curriculum discipline	Practical lessons	Yes	36	No	Spring semester of the 1st course, during the	FEFU	Academic group	Budget within the framework of the EP for interfaculty	Mamarasulov A.R., Department of Philosophy and

							semester				Religious Studies, FEFU
Physical	Physical culture and sports, Elective courses in physical culture and sports	FEFU, curriculum discipline	Practical lessons	Yes	398 (the entire volum e accord ing to UE)	No	During the academic year according to UP OP	FEFU	Academic group	Budget within the framework of the EP for interfaculty	Department of Physical Education FEFU
	Health-saving food technologies	FEFU, optional discipline of the curriculum	Lectures, practical classes	Yes	28	No	Spring semester 2 courses, during the semester	FEFU	Academic group	Budget within the OP	NSP
	Sanitary and epidemiologica l requirements for the activities of enterprises and the quality of food products in the food industry	FEFU, optional discipline of the curriculum	Lectures, practical classes	Yes	28	No	Fall semester 2 courses, during the semester	FEFU	Academic group	Budget within the OP	NSP
ecological	Bioecology	FEFU, optional discipline of the curriculum	Lectures, practical classes	Yes	28	No	Spring semester 2 courses, during the semester	FEFU	Academic group	Budget within the OP	NSP
	Life safety	FEFU, curriculum discipline	Lectures, practical classes	Yes	36	No	Fall semester of the 1st course, during the semester	FEFU	Academic group	Budget within the framework of the EP for interfaculty	Chernysheva V.V., Department of natural and technical systems and technosphere safety
	Educational practice. Introductory practice	FEFU, curriculum discipline	Practical lessons	Yes	72	No	Spring semester 1st year	FEFU	Academic group	Budget within the OP	NSP
Labor	Internship. Technological practice	FEFU, curriculum discipline	Practical lessons	Yes	108	No	Spring semester 3 courses	FEFU	Academic group	Budget within the OP	NSP
]	Internship. Operational practice	FEFU, curriculum discipline	Practical lessons	Yes	108	No	Fall semester 4 courses	FEFU	Academic group	Budget within the OP	NSP

	Fundamentals of the work of a biotech enterprise	NSP	Field trip	No	-	Yes	March 2022	GC Arnika	Academic group	5000 rub.	Head of OP, group curator
	Fundamentals of the food industry	NSP	Field trip	No	-	Yes	April 2022	OOO Ratimir	Academic group	5000 rub.	Head of OP, group curator
Cultural and creative	World Health Day Booklet Competition	SHM, PSH	booklet competition	No	-	Yes	April 2022	FEFU	30 people	10 000 rub.	ShM - Tumanova N.S. NIS - Vladykina T.V., Dubnyak Ya.V.
	Educational practice. Research work (obtaining primary skills of research work)	FEFU, curriculum discipline	Practical lessons	Yes	72	No	Spring semester 2 courses, during the semester	FEFU	Academic group	Budget within the OP	NSP
	Internship. Research work	FEFU, curriculum discipline	Practical lessons	Yes	72	No	Spring semester 2 courses	FEFU	Academic group	Budget within the OP	NSP
	Scientific circle by directions	PSH, FEFU	Meetings of the scientific circle, lectures, practical classes	No	-	Yes	During the school year	FEFU, PIS	20-30 people	???	NSP
Scientific and educational	The first scientific- practical conference of NSP among students, graduate students and young scientists	PSH, FEFU	Scientific and practical conference	No	-	Yes	April-May 2022	FEFU	30-50 people	100 000 rub.	NSP
	Scientific design and research methodology	FEFU, curriculum discipline	Lectures, practical classes	Yes	54	No	Spring semester 2 courses, during the semester	FEFU	Academic group	Budget within the OP	NSP
	Scientific Seminar	FEFU, curriculum discipline	Practical lessons	Yes	36	No	Fall semester 3 course, during the semester	FEFU	Academic group	Budget within the OP	NSP

	Volunteering	Volunteering and volunteer movement	FEFU, curriculum discipline	Lectures, practical classes	Yes	36	No	Spring semester of the 1st course, during the semester	FEFU	Academic group	Budget within the framework of the EP for interfaculty	Department of Social Sciences FEFU
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