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 SISTEMS»

APPROVE
Director of the Advanced
Engineering School
«Institute of Biotechnology,
Bioengineering and Food Systems»

_____ Л.А. Текутьева

«3» ноября 2022 г.

COLLECTION OF PRACTICE PROGRAMS

DIRECTION OF PREPARATION

19.04.01 Biotechnology

Academic 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

Vladivostok

2022

MINISTRY OF EDUCATION AND SCIENCE OF THE RUSSIAN FEDERATION
Federal state autonomous educational institution
of higher education
«Far Eastern Federal University»
(FEFU)
INSTITUTE OF LIFE SCIENCES AND BIOMEDICINE (SCHOOL)

AGREED	APPROVE
Head of OP	Head of VSP
Kalenik T.K.	Kalenik T.K.
(signature) (full name)	(signature) (full name)
«28» September 2021 г.	«28» September 2021 г.

WORKING PROGRAM OF TRAINING PRACTICE

ACADEMICAL TRAINING. PRACTICE IN OBTAINING PRIMARY PROFESSIONAL SKILLS

19.04.01 Biotechnology
Name of the educational program: Agri-Food Biotechnology

Master's program

Vladivostok

2021

1. REGULATORY DOCUMENTATION REGULATING THE PROCESS OF ORGANIZATION AND PRACTICE

The internship program for obtaining primary professional skills and abilities (hereinafter referred to as educational) was developed in accordance with the requirements of the educational standard, independently established by FEFU, approved by the decision of the FEFU Academic Council, protocol № 06-15 от 04.06.2015 and put into effect by the order of the rector of FEFU dated 07.07.2015 № 12-13-1282.

2. OBJECTIVES OF DEVELOPMENT OF PRODUCTION PRACTICE

The goals of educational practice are to introduce students to scientific and pedagogical activities, to reveal their research and pedagogical potential, to develop professional self-awareness in the context of humanistic pedagogical values.

3. OBJECTIVES OF PRODUCTION PRACTICE

The tasks of teaching practice are:

− formation of interns' skills to develop and apply modern educational technologies, choose the best teaching strategies depending on the learning objectives, the level of training of students;

− establishing and strengthening the connection of theoretical knowledge;

−preparation of future teachers for educational activities with students: creation of conditions for the establishment of relations of cooperation between students and teachers, the development of student self-government, public student organizations and associations.

4. PLACE OF PRODUCTION PRACTICE IN THE STRUCTURE OF OP

Educational practice is the first stage of practical training at the level of higher education - magistracy and is aimed at obtaining by students primary professional skills and abilities, including primary skills and abilities in pedagogical activity

Training practice is carried on the basis of «Far Eastern Federal University».

Educational practice is based on the theoretical development of such disciplines as: «Methodology of scientific research and patent search in biotechnology», «Research methods in biotechnology», «Administration and management of agriculture and agro-industrial complex».

The passage of practical training by students is an integral part of the educational process and is necessary for the subsequent study of the disciplines of the professional cycle («Safety and biosafety of agri-food raw materials and food products», « Current trends in biotechnology»).

5. TYPES, METHODS, PLACE AND TIME OF PRODUCTION PRACTICE

Type of practice: Educational practice.

Conducting practice: continuously, (2 weeks on 1 course).

Practice time: 2 semester

Place of practice:

The place of practice is the structural divisions of FEFU (Department of Food Science and Technology).

6. . TRAINING COMPETENCIES FORMED AS A RESULT OF PERFORMANCE OF PRACTICE

Code and wording of competency	**Competency Stages**	
GC-13 willingness to use legal and ethical standards in assessing the consequences of their	Knows	egal and ethical standards in assessing the consequences of their professional activities, in the development and

professional activities, in the development and implementation of socially significant projects		implementation of socially significant projects
	Is able	willingness to use legal and ethical standards in assessing the consequences of their professional activities
	Owns	
SPC-12 ability to plan and carry out activities to ensure safety at work, to monitor and protect the environment	Knows	fundamentals of industrial safety, normative and technical documentation, regulations, veterinary norms and rules
	Is able	apply knowledge in practice in the field of industrial safety, monitoring and environmental protection
	Owns	ways to ensure safety at work, monitor and protect the environment
SPC-1 readiness to plan, organize and conduct research work in the field of biotechnology, the ability to correctly process the results of experiments and draw reasonable conclusions and conclusions	Knows	the main directions of research work in the field of agro-industrial complex and biotechnology
	Is able	receive results and draw reasonable conclusions from research work in the field of agro-industrial complex and biotechnology
	Owns	basic knowledge of research methods in the field of agro-industrial complex and biotechnology
SPC-15 willingness to ensure the stability of production indicators and product quality	Knows	norms of production quality indicators
	Is able	ensure the stability of production indicators and product quality
	Owns	the ability to ensure the stability of production indicators and product quality

7. . **STRUCTURE AND CONTENT OF PRACTICE INCLUDING PRACTICAL TRAINING**

The total complexity of production practice is 3 credits, 108 hours.

№ п/п	Sections (stages) of practice	Types of work in practice, including independent work of students and laboriousness (in hours)	Current Control Forms

1	Preparatory stage: - Obtaining documents for practice (direction, diary, assignment); - Arrival at the place of practice and an introductory briefing; -Organization of the workplace and acquaintance with the team.	Obtaining documents for practice (1 h)	Introductory lecture (1 h)	Safety briefing (1 h)		Making entries in the diary. Oral conversations.
2	The main stage: - Study of the organizational structure of the base of practice; - the study of regulatory and technical documentation; - Implementation of individual production tasks; - The study of practical activities.	Accomplishment of practice tasks in accordance with the program (54h)	Safety briefing at the enterprise (1 hours)	Study of materials and documents at the place of practical training (22 h)	Processing and analysis of the obtained practice materials (10 h)	Making entries in the diary. Oral conversations.
3	The final stage: - Processing and systematization of the received material; - Preparation of a report on the passage of organizational and managerial practice; - Protection of the report on organizational and management practices.	Report writing (10h)	Presentation preparation (6 h)	Report Protection (2 hours)		Score with grade

8. TRAINING AND METHODOLOGICAL SUPPORT OF INDEPENDENT WORK OF STUDENTS IN PRODUCTION PRACTICE

Educational practice is aimed at developing the skills of trainees to develop and apply modern educational technologies, choose the best teaching strategies depending on the learning objectives, the level of training of students.

During the educational practice, regardless of the place of its passage, students should pay special attention to issues related to the creation of conditions for the establishment of relations between students and teachers, the development of student self-government, public student organizations and associations. An individual task (Appendix 1) is issued to the student at the university by the head of the practice before the start of the practice.

9. FORMS OF CERTIFICATION (BY THE RESULTS OF PRACTICE

Before undergoing practical training, the student receives an individual task from the head of practice from the university, the contents and volume of which are agreed upon with the head of the practice.

Based on the results of the practice, the student draws up a report on the passage of practice, participates in the final conference with the presentation of the results of the practice, after which she receives an offset with an assessment.

The practice report should contain the following elements:

- Title page (Appendix 3);
- Assignment and schedule of practice (Appendix 1);
- Introduction;
- Report on production activities in the process of internship;
- Sources of information;

The report is drawn up in accordance with the "Requirements for the design of written work performed by students and students of FEFU."

The volume of the report depends on the topic of the individual assignment.

Sample report structure

1. General information about the enterprise and its brief description (history, geographical location, list of main workshops, buildings and structures with an indication of their purpose; information about the main services of the enterprise).

2. The structure of the enterprise and its individual divisions, its raw material base.

3. The range of products and their characteristics. Regulatory documents for manufactured products. Design and operating capacity of the enterprise.

4. Individual task. The technological regulations for the production of one of the types of products (requirements for raw materials and finished products, formulation, methods of technochemical control, description of the main technological stages of production and methods of waste disposal).

5. Characterization of finished products (including types of packaging, storage conditions, transportation, sales, types of control of finished products).

6. Conclusion.

By agreement with the head of practice from the university and depending on the location of this type of practice, the structure of the report or its individual parts may change.

10.EDUCATIONAL AND METHODOLOGICAL AND INFORMATION SUPPORT OF PRODUCTION PRACTICE

Main literature:

1. Basic principles of processing raw materials of plant, animal, microbiological origin and fish: method. instructions for students spec. 240902 "Food biotechnology" of all forms of education / comp. E.V. Makarova, Vladivostok: Publishing House of the Pacific University of Economics, 2009. - 80 p. http://lib.dvfu.ru:8080/lib/item?id=chamo:356130&theme=FEFU

2. Measuring methods for monitoring food quality and safety indicators: [training manual] [in 2 hours]: part 1. Vegetable products / V. V. Shevchenko, A. A. Vytovtov, L. P. Nilova [and others]. St. Petersburg: Troitsky Most, 2009. - 303 p. http://lib.dvfu.ru:8080/lib/item?id=chamo:358418&theme=FEFU

3. Examination of specialized food products. Quality and safety: textbook for universities / [L. A. Mayurnikova, V. M. Poznyakovsky, B. P. Sukhanov and others]; under total ed. V. M. Poznyakovsky. St. Petersburg: GIORD, 2012. - 421 p. http://lib.dvfu.ru:8080/lib/item?id=chamo:664633&theme=FEFU

4. Educational and industrial practices [Electronic resource]: guidelines / - Electron. text data. - Kazan: Kazan National Research Technological University, 2016. - 52 p. http://www.iprbookshop.ru/63521.htmlБелозерова, М.С. Учебная практика [Электронный ресурс] : учебно-методическое пособие / М.С. Белозерова. — Электрон. дан. — Санкт-Петербург : НИУ ИТМО, 2016. — 34 с. https://e.lanbook.com/book/91457

5. Introduction to the direction. Biotechnology [Electronic resource]: textbook / L.S. Dyshlyuk [i dr.]. — Electron. Dan. - Kemerovo: KemGU, 2014. - 157 p. https://e.lanbook.com/book/60191

6. Krasnikova L.V. Microbiological safety of food raw materials and finished products [Electronic resource]: teaching aid / Krasnikova L.V., Gunkova P.I. — Electron. text data. - St. Petersburg: ITMO University, Institute of Refrigeration and Biotechnology, 2014. - 89 p. http://www.iprbookshop.ru/67301.html

Additional:

1 Auerman, L.Ya. Technology of bakery production: Textbook / L.Ya. Auerman. - 9th ed., revised. and additional / Under the total. ed. L.I. Puchkova. - St. Petersburg: Profession, 2009. - 416 p. http://lib.dvfu.ru:8080/lib/item?id=chamo:316025&theme=FEFU

2 Borisenko, L.A. Biotechnological bases for the intensification of the production of salted meat products / A.A. Borisenko, A.A. Bratsikhin. – M.: DeLi print, 2010. – 163 p. http://lib.dvfu.ru:8080/lib/item?id=chamo:342770&theme=FEFU

3 Ivashov, V.I. Technological equipment of meat industry enterprises: a textbook for universities / V.I. Ivashov. - St. Petersburg: GIORD, 2010. - 736 pages http://lib.dvfu.ru:8080/lib/item?id=chamo:359114&theme=FEFU

4 Rogov, I.A. General technology of meat and meat products / I.A.Rogov, A.G. Zabashta, G.P. Kazyulin. – M.: KolosS, 2010. – 367 p. http://lib.dvfu.ru:8080/lib/item?id=chamo:340686&theme=FEFU

List of resources of the information and telecommunications network «Internet».

1. http://elibrary.ru Scientific electronic library eLIBRARY.RU
2. Electronic library system "Lan" http://e.lanbook.com/
3. Electronic library system "IPRBOOK" http://www.iprbookshop.ru
4. Scopus databasehttp://www.scopus.com/home.url
5. Web of Science database http://apps.webofknowledge.com/
6. Database of full-text academic journals in China http://oversea.cnki.net/
7. Electronic Library of Dissertations of the Russian State Library http://diss.rsl.ru/
8. Electronic databases EBSCO http://search.ebscohost.com/

11.MATERIAL AND TECHNICAL SUPPORT OF PRODUCTION PRACTICE

Logistical support for the implementation of the practice on the basis of the Department of Food Science and Technology includes classrooms for lectures and practical classes, equipped with multimedia support and complying with sanitary and contrary rules and regulations.

№ п/п	Name of special rooms and premises for independent work	Equipped with special rooms and rooms for independent work
3	690022, Primorsky Territory, Vladivostok, Russky Island, Saperny Peninsula, village of Ajax 10, auditorium M 311. M311- The classroom for lecture-type classes, seminar-type classes, group and individual consultations, ongoing monitoring and interim certification.	Training furniture for 25 workplaces, teacher's place (table, chair), Analytical and technological equipment (M311): Milk centrifuge with heating ЦЛМ 1-12; Liquid thermostat LOIP Lt-208a, volume 8l, 120x150 / 200mm; Analyzer of milk quality Lactan 1-4 mod. 230; PH-millivolmeter with tripod pH-150MI; VSP 1.5-2-3T scales; Refrigerator "Ocean-RFD-325B"; Drying cabinet, stainless steel chamber. steel, 58l; electric stove 111CH 101-226589; PE-6110 magnetic stirrer with heating; VNZh-0,3-KhS3 viscometer (d-1.41) glass capillary; Tripod PE-2710 lab. for burettes. Multimedia equipment: Monoblock Lenovo C360G-i34164G500UDK; Screen with

		electric 236 * 147 cm Trim Screen Line; DLP projector, 3000 ANSI Lm, WXGA 1280x800, 2000: 1 EW330U Mitsubishi; Subsystem of specialized hardware mounts CORSA-2007 Tuarex; Video Switching Subsystem: DVI DXP 44 DVI Pro Extron matrix switcher; Extender DVI over twisted pair DVI 201 Tx / Rx; Subsystem of audio switching and sound reinforcement; ceiling mount speaker SI 3CT LP Extron; Sennheiser EW 122 G3 UHF Microphone Lavalier Radio System with a wireless microphone and receiver; DMP 44 LC Extron digital audio processor; Extron IPL T S4 Network Management Controller; Wireless LANs for students are provided with a system based on 802.11a / b / g / n 2x2 MIMO (2SS) access points.
4	690022, Primorsky Territory, Vladivostok, Russky Island, Saperny Peninsula, village of Ajax 10, auditorium M621. M621- The classroom for the implementation of design work, lecture-type classes, seminar-type classes, group and individual consultations, ongoing monitoring and interim certification.	Training furniture for 17 workplaces, Teacher's place (table, chair), Computer class: Monoblock Lenovo C360G-i34164G500UDK 19.5 "Intel Core i3-4160T 4GB DDR3-1600 SODIMM (1x4GB) 500GB Windows Seven Enterprise - 17 pcs; Wired LAN - Cisco 800 series; Wireless LAN for students is provided with a system based on 802.11a / b / g / n 2x2 MIMO (2SS) access points.
6	690922, Primorsky Territory, Vladivostok, Russky Island, Saperny Peninsula, village of Ajax, 10, building A, aud. A1017. Reading rooms of the FEFU Scientific Library with open access to the fund (building A - level 10) Audience for independent work of graduate students.	The room is equipped with specialized training furniture (seats - 15) Equipment: Monoblock Lenovo C360G-i34164G500UDK - 15 pcs. Integrated Polymedia FlipBox Touchscreen Display - 1 pc. Copier-printer-color scanner in e-mail with 4 trays Xerox WorkCentre 5330 (WC5330C - 1 pc.

In order to ensure special conditions for the training of disabled and disabled people in FEFU, all buildings are equipped with ramps, elevators, lifts, specialized places, equipped with toilets, information and navigation support signs.

For people with disabilities and people with disabilities, the choice of practice places is consistent with the requirement of their accessibility for these

students and the practice is conducted considering the peculiarities of their psychophysical development, individual capabilities and health status.

12.VALUATION FUNDS

After graduation and preparation of the report in accordance with the requirements, the student submits his report to the defense of the head from the university. According to the results of the defense, a test is set with a rating (excellent, good, satisfactory, unsatisfactory

«Excellent» - the necessary practical work skills and professional competencies provided for by the practical training program are fully formed, the tasks are completed, the quality of their implementation is estimated by the number of points close to the maximum.

«Good» - the necessary practical work skills and professional competencies provided for by the practical training program are fully formed, the tasks are completed, the quality of execution of none of them is estimated by the minimum number of points, some types of tasks are completed with errors or not thoroughly enough.

«Satisfactory» - the necessary practical work skills and professional competencies are mainly formed, the gaps are not significant, some of the completed tasks contain errors.

«Unsatisfactory» - the necessary practical work skills and professional competencies provided for by the production program are not formed, all completed training tasks contain gross errors, additional independent work on the report materials will not lead to any significant improvement in the quality of the tasks.

Compiled by: Professor of the Department of Food Sciences and Technologies, Doctor of Biological Sciences, Professor Kalenik T.K., Associate Professor of the Department of Food Sciences and Technologies Novitckaia E.G.

The practice program was discussed at a meeting of the Department of Food Science and Technology, protocol №. 1 «28» September 2021.

ANNEX 1

MINISTRY OF EDUCATION AND SCIENCE OF THE RUSSIAN FEDERATION
Federal state autonomous educational institution
of higher education
«Far Eastern Federal University»
(FEFU)

INSTITUTE OF LIFE SCIENCES AND BIOMEDICINE (SCHOOL)

«AGREED»
Head of education program

_____FULL NAME.
"____" _____20__

INDIVIDUAL JOB

By _____

(Type of practice)

Student ___ group's _____

(Name of student)

Educational program _19.04.01 "Biotechnology"

Base (place, organization) of practice
_____

Duration of practice from _____20___Y. To _____ 20___ Y

Generalized wording of the assignment	

Task Schedule

The name of the tasks (activities) that make up the task	Date of completion of the task (event)
1.	
2.	
3.	

Head of Practice _____ _____

signature full name, position

APPENDIX 2

Practice Diary Example

Far Eastern Federal University

INSTITUTE OF LIFE SCIENCES AND BIOMEDICINE (SCHOOL)

Head of Practice from FEFU

_____

Head of practice from the host organization

_____

A DIARY

By _____ practice

Student _____ course _____ group

By program_____

Place of Practice _____

Duration of practice _____ weeks

_____

1. Student calendar

№ п\п	Name of work	Calendar dates		Surname of head of practice
		start	ending	

2. Student work diary

date of	Summary of work intern	Signature a manager

3. Report protection results
The report is protected by _____ _____ 20___
With a rating of _____

Director of DPNiT _____ Full name

ANNEX 3

Practice report title page form

MINISTRY OF EDUCATION AND SCIENCE OF THE RUSSIAN FEDERATION
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«Far Eastern Federal University»
(FEFU)

INSTITUTE OF LIFE SCIENCES AND BIOMEDICINE (SCHOOL)

The report is protected with a rating of _____
"_____" _____ 20__ Y

Director of DPNiT
_____ Surname I.O.

.

REPORT

on the passage of Academical training. Teaching practice in
_____
(Full name of the enterprise)

Student gr. _____ groups _____ (_____)
Signature full name
Supervisor
from the university _____ (_____)
Signature full name

APPENDIX 4
Form of referral to industrial practice

MINISTRY OF EDUCATION AND SCIENCE OF THE RUSSIAN FEDERATION
Federal state autonomous educational institution
of higher education
«Far Eastern Federal University»
(FEFU)

INSTITUTE OF LIFE SCIENCES AND BIOMEDICINE (SCHOOL)

N A P R A V L E N I E
To practice _____

Student of the master course
_____Last name First name _____group
(Full Name)
Seconded to_____
Name of base organization
Address_____
Order on referral to practical training No. _____
For passing _____
In the direction of preparation 19.04.01 Biotechnology for a period from _____ 201 to _____ 201 (continuous / discrete)

Head of Practice
Professional skills and experience in
Professional activity
M.P. _____ _____ _____

(Position, academic title) (Signature) (Full name)

Marks on the implementation and terms of practice

Company name	Arrival and Departure Mark	Signature, decryption of signature, stamp
Name of enterprise, organization in accordance with the contract	*Arrived* __.__.*20*__ г.	
	Arrived __.__.*20*__ г.	

Head of Practice _____ _____

signature full name, position

MINISTRY OF EDUCATION AND SCIENCE OF THE RUSSIAN FEDERATION
Federal state autonomous educational institution
of higher education
«Far Eastern Federal University»
(FEFU)
INSTITUTE OF LIFE SCIENCES AND BIOMEDICINE (SCHOOL)

AGREED

Head of OP

Kalenik T.K.
(signature) (full name)

«28» September 2021 г.

APPROVE

Head of VSP

Kalenik T.K.
(signature) (full name)

«28» September 2021 г.

WORKING PROGRAMM INTERNSHIP

WORK EXPERIENCE INTERNSHIP. RESEARCH SEMINAR ACTUAL PROBLEMS OF AGRI-FOOD BIOTECHNOLOGY IN THE FAR EAST OF RUSSIA

Type for the direction of training
19.04.01 Biotechnology
Name of the educational program: Agri-Food Biotechnology

Master's program

Vladivostok

2021

1. GENERAL PROVISIONS OF THE PROGRAM

1.1. This Program has been developed in accordance with the current legislation in the field of science and innovation.

1.2. Research work is a mandatory section of the main educational program for the preparation of masters and is aimed at the formation of professional competencies in accordance with the educational standard, independently established by FEFU, approved by order of the rector of 07.07.2015 № 12-13-1282.

1.3 The research seminar of the student includes research work in the semester (work within the framework of a scientific seminar, preparation of term papers, writing scientific articles, participation in scientific events), research practice, preparation and defense of the final qualifying work.

1.4. The volume (total number) of hours devoted to research work is determined by the educational standards of higher education in the areas of training and curricula.

1.5. The content of the research work of students is determined in accordance with the profile of the training program, the subject of scientific research of the Department, economic contract topics, and more. Specific types, forms of research work and the timing of their implementation are indicated in the individual plan of the student's research work.

1.6. An individual plan is developed by the student together with the supervisor for each academic year, taking into account work by semesters and approved by the student's supervisor (Appendix 1).

1.7. The general management of the research work on the program is carried out by the head of the educational program. The direct supervision of the research work of students is carried out by supervisors appointed in accordance with the order of the director of the school.

1.8. The organization of research practice for undergraduates is carried out in accordance with the Regulations on practices in FEFU.

2. GOALS AND OBJECTIVES OF RESEARCH WORK

2.1. The purpose of the research work in the semester is to form the student's skills and develop the competencies of research work, allowing to conduct research work both individually and in a team.

2.2. Research work in the semester (Research Seminar) is carried out by the student - under the guidance of the supervisor. The direction of the student's research work is determined in accordance with the profile of the master's program.

2.3 Research work (Research Seminar) should ensure the acquisition of professional competencies by students:

- GPC-1 ability for professional operation of modern biotechnological equipment and scientific instruments;

- GPC-2 readiness for communication in oral and written forms in the state language of the Russian Federation and a foreign language to solve problems;

- GPC-4 readiness to use methods of mathematical modeling of materials and technological processes, readiness for theoretical analysis and experimental verification of theoretical hypotheses;

- GPC-5 the ability to use modern information technologies to collect, process and disseminate scientific information in the field of biotechnology and related industries, the ability to use databases, software products and resources of the Internet information and telecommunication network (hereinafter referred to as the Internet network) to solve tasks of professional activity;

- GPC-6 readiness to protect intellectual property and commercialize rights to intellectual property;

- SPC-1 readiness for planning, organizing and conducting research work in the field of biotechnology, the ability to correctly process the results of experiments and draw reasonable conclusions and conclusions;

- SPC-2 the ability to analyze scientific and technical information in the field of biotechnology and related disciplines for the purpose of scientific, patent and

marketing support for ongoing fundamental research and technological developments;

- SPC-3 the ability to present the results of the work performed in the form of scientific and technical reports, reviews, scientific reports and publications using modern information technology capabilities and taking into account the requirements for the protection of intellectual property;

- SPC-9 readiness to use the basic principles of organization of metrological support of production.

2.4. The following types and stages of implementation and control of the research work of the student are provided:

– planning of research work, including familiarization with the topics of research work in this area and the main trends in the development of scientific research, and the choice of a research topic;

– selection, development and implementation of research work in the chosen direction;

– adjustment of the plan for conducting research work;

– drawing up a report on research work;

- protection of the work performed.

The main form of planning and adjusting individual plans for the research work of students is the substantiation of the topic, discussion of the plan and intermediate results of the study within the framework of the research seminar.

2.5. According to the results of the research work, the student must:

Know:

main scientific problems of agricultural biotechnology, its role and place in modern biotechnology;

– degree of scientific elaboration of the researched problem in the field of biotechnology of products from raw materials of plant and animal origin;

– specifics of the technical presentation of scientific material;

Own:

– modern problems of the biotechnological branch of knowledge;

– basic biotechnological methods for creating new food products;

– skills of scientific discussion;

Be able to:

– apply modern methods of food analysis in scientific research;

– practically carry out scientific research, experimental work in their scientific field, related to the performance of qualifying work;

– search for bibliographic sources in both Russian and foreign databases;

work with information software products and Internet resources, etc.

3. ORGANIZATION OF RESEARCH WORK

3.1. Research work (Research seminar) in the semester can be carried out in the following forms:

– fulfillment of tasks of the supervisor in accordance with the approved individual plan of research work (Appendix 2);

– participation in scientific events of FEFU, the Institute of Life Sciences and Biomedicine and the Department of Food Science and Technology;

– preparation of reports and speeches at scientific conferences, seminars, symposiums and other scientific events at the regional, all-Russian and international levels;

preparation and publication of abstracts of reports, scientific articles;

– participation in research projects carried out at the university within the framework of research programs,

– preparation and defense of qualification work.

3.2. The content of the research work (Research Seminar)

The research seminar is included in Block 2 «Practices, including research work (R&D)» of the educational standard, independently established by FEFU, in the direction 19.04.01 «Biotechnology», which was adopted by the decision of the FEFU Academic Council, protocol № 06-15 dated 04.06.2015, and put into effect by order of the FEFU rector dated 07.07.2015 № 12-13-1282, is mandatory,

variable and is a type of training session directly focused on professional and practical training of students.

Method of conducting research: dispersed (108 hours for the 2nd year), classroom load - 18 hours.

3.2.1 Research work in the first semester:

− Planning of research work.

− Approval of an individual research plan.

− Selection and approval of the direction of research, substantiation of relevance and theoretical significance, study of the degree of scientific development of the problem, writing an abstract or article on a chosen topic.

− Analysis of the main results and provisions obtained by leading experts in the field of studying food of animal origin (meat and meat products).

3.2.2 The plan of the audience load within the framework of the Research Seminar:

Topic 1.1 Biotechnology, including agro-food biotechnology. Terms and definitions (2 hours);

Topic 1.2 Actual problems of agro-food biotechnology in the Russian Far East (4 hours);

Topic 1.3 Main scientific directions in agro-food biotechnology (2 hours);

Topic 1.4 Setting the goal and objectives of scientific research in agro-food biotechnology (2 hours);

Topic 1.5 Organization of work with scientific literature (2 hours);

Topic 1.6 Results of research work. Protection of intellectual property (4 hours);

Topic 1.7 Writing a research report (2 hours);

3.3. Appraisal Form

For certification based on the results of research, the student must submit a report on research (title page form in Appendix 1) with a note from the head.

Certification based on the results of research is carried out in the form of defending a report in the form of a presentation. Reporting form «credit with assessment».

Based on the results of the defense, a test is given with an assessment (excellent, good, satisfactory, unsatisfactory):

«Excellent» - the necessary practical work skills and professional competencies provided for by the program of educational practice are fully formed, the tasks are completed, the quality of their performance is estimated by a number of points close to the maximum.

«Good» - the necessary practical work skills and professional competencies provided for by the program of educational practice are fully formed, the tasks are completed, the quality of none of them is rated with the minimum number of points, some types of tasks are completed with errors or insufficiently carefully.

«Satisfactory» - the necessary practical skills and professional competencies are basically formed, the gaps are not significant, some of the completed tasks contain errors.

«Unsatisfactory» - the necessary practical skills and professional competencies provided for by the program of training practice are not formed, all completed training tasks contain gross errors, additional independent work on the report materials will not lead to any significant improvement in the quality of assignments.

6. LIST OF TRAINING LITERATURE AND INFORMATION AND METHODOLOGICAL SUPPORT OF DISCIPLINE

Main literature:

1. Biotechnology: a textbook for agricultural universities / V. A. Chkhenkeli. St. Petersburg: Prospect of Science, 2014 .-- 335 p. http://lib.dvfu.ru:8080/lib/item?id=chamo:785504&theme=FEFU

2. General biology and microbiology: guidelines for laboratory work, part 3 / Pacific State University of Economics; [comp. : J. G. Prokopets, E. S.

Fischenko, S. V. Zhuravlev]. Vladivostok: Publishing House of the Pacific Economic University, 2010. - 44 p. http://lib.dvfu.ru:8080/lib/item?id=chamohaps5757292&theme=FEFU

3. Sarafanova, L.A. Nutritional Supplements: Encyclopedia - 3rd ed., Revised. and add. / L.A. Sarafanova. - St. Petersburg: Profession, 2011 .-- 776 p. http://lib.dvfu.ru:8080/lib/item?id=chamo:342063&theme=FEFU

4. Chemistry of food products: Per. from English / ed. : Srinivasan Damodaran, Kirk L. Parkin, Owen R. Fennema. St. Petersburg: Profession, 2012 .-- 1039 p. http://lib.dvfu.ru:8080/lib/item?id=chamo:675478&theme=FEFU

Additional literature:

1 Auerman, L.Ya. Technology of baking production: Textbook / L.Ya. Auerman. - 9th ed., Revised. and add. / Under the total. ed. L.I. Puchkova. - St. Petersburg: Profession, 2009 .-- 416 p. http://lib.dvfu.ru:8080/lib/item?id=chamo:316025&theme=FEFU

2 Borisenko, L.A. Biotechnological basis for the intensification of production of salted meat products / A.A. Borisenko, A.A. Bratsikhin. - M .: DeLi print, 2010 .-- 163 p. http://lib.dvfu.ru:8080/lib/item?id=chamo:342770&theme=FEFU

3 Ivashov, V.I. Technological equipment for meat industry enterprises: a textbook for high schools / V.I. Ivashov. - St. Petersburg .: GIORD, 2010. - 736 pp. Http://lib.dvfu.ru:8080/lib/item?id=chamo{59114&theme=FEFU

4 Rogov, I.A. General technology of meat and meat products / I.A. Rogov, A.G. Zabashta, G.P. Kazyulin. - M.: KolosS, 2010 .-- 367 p. http://lib.dvfu.ru:8080/lib/item?id=chamo{40686&theme=FEFU

5 Krus, G.N. Technology of milk dairy products: Textbook / G.N. Krus, A.G. Khramtsov, 3.V. Volokitina, S.V. Karpychev; Ed. A.M. Shalyginoy. - M: KolosS, 2006 .-- 455 p. http://lib.dvfu.ru:8080/lib/item?id=chamo:351156&theme=FEFU

The list of resources of the information and telecommunication network "Internet".

1. http://elibrary.ru Scientific Electronic Library eLIBRARY.RU

2. The electronic library system "Doe" http://e.lanbook.com/

3. The electronic library system "IPRBOOK" http://www.iprbookshop.ru

4. Scopushttp database: http://www.scopus.com/home.url

5. Web of Science database http://apps.webofknowledge.com/

6. Database of full-texting academic journals in China http://oversea.cnki.net/

7. The electronic library of dissertations of the Russian State Library http://diss.rsl.ru/

8. EBSCO Electronic Databases http://search.ebscohost.com/

Compiled by: Professor of the Department of Food Sciences and Technologies, Doctor of Biological Sciences, Professor Kalenik T.K., Associate Professor of the Department of Food Sciences and Technologies Novitckaia E.G.

The practice program was discussed at a meeting of the Department of Food Science and Technology, protocol №. 1 «28» September 2021.

ANNEX 1

Research report title page form

MINISTRY OF EDUCATION AND SCIENCE OF THE RUSSIAN FEDERATION
Federal state autonomous educational institution
of higher education
«Far Eastern Federal University»
(FEFU)

INSTITUTE OF LIFE SCIENCES AND BIOMEDICINE (SCHOOL)

The report is protected with a rating of _____
"_____" _____ 20__ Y

Director of DPNiT
_____ full name.

.

REPORT

On practical training (Research work) on the topic
_____
(Full name of the enterprise)

Student gr. _____ groups _____ (_____)
Signature full name
Supervisor
from the university _____ (_____)
Signature full name

ANNEX 2

MINISTRY OF EDUCATION AND SCIENCE OF THE RUSSIAN FEDERATION
Federal state autonomous educational institution
of higher education
«Far Eastern Federal University»
(FEFU)

INSTITUTE OF LIFE SCIENCES AND BIOMEDICINE (SCHOOL)

«AGREED»
Head of education program

_____FULL NAME.
"____" _____20__

INDIVIDUAL JOB

By _____

(Type of practice)

Student ___ group's _____

(Name of student)

Educational program _19.04.01 "Biotechnology"

Base (place, organization) of practice
_____

Duration of practice from _____20___Y. To _____ 20___ Y

Generalized wording of the assignment	

Task Schedule

The name of the tasks (activities) that make up the task	Date of completion of the task (event)
1.	
2.	
3.	

Head of Practice _____ _____

signature full name

MINISTRY OF EDUCATION AND SCIENCE OF THE RUSSIAN FEDERATION
Federal state autonomous educational institution
of higher education
«Far Eastern Federal University»
(FEFU)
INSTITUTE OF LIFE SCIENCES AND BIOMEDICINE (SCHOOL)

AGREED

Head of OP

Kalenik T.K.
(signature) (full name)

«28» September 2021 г.

APPROVE

Head of VSP

Kalenik T.K.
(signature) (full name)

«28» September 2021 г.

WORKING PROGRAM OF PRODUCTION PRACTICE

WORK EXPERIENCE AND INTERNSHIP. RESEARCH WORK

Type for the direction of training
19.04.01 Biotechnology
Name of the educational program: Agri-Food Biotechnology

Master's program

Vladivostok

2021

1. OBJECTIVES OF DEVELOPMENT OF PRODUCTION PRACTICE

1.1. This Program has been developed in accordance with the current legislation in the field of science and innovation.

1.2. Research work is an obligatory section of the main educational program for the preparation of masters and is aimed at the formation of professional competencies in accordance with the requirements of the educational standard independently established by the federal state autonomous educational institution of higher professional education «Far Eastern Federal University», which was adopted by the decision of the FEFU Academic Council, Protocol № 06-15 от 04.06.2015 and put into effect by the order of the rector of FEFU dated 07.07.2015 № 12-13-1282.

1.3. The research work of the student includes research work in the semester (work within the framework of a scientific seminar, preparation of term papers, writing scientific articles, participation in scientific events), research practice, preparation and defense of the final qualifying work (master's thesis).

1.4. The volume (total number) of hours devoted to research work is determined by the educational standards of higher education in the areas of training and curricula.

1.5. The content of the research work of students is determined in accordance with the profile of the training program, the subject of scientific research of the department, economic contract topics, and more. Specific types, forms of research work and the timing of their implementation are indicated in the individual plan of the student's research work.

1.6. An individual plan is developed by the student together with the supervisor for each academic year, taking into account work by semesters and approved by the student's supervisor (Appendix 1).

1.7. The general management of the research work on the program is carried out by the head of the educational program. The direct supervision of the research

work of students is carried out by supervisors appointed in accordance with the order of the director of the school.

1.8. The organization of research practice for undergraduates is carried out in accordance with the Regulations on practices in FEFU.

2. OBJECTIVES OF PRODUCTION PRACTICE

2.1 The goal of the research work in the semester is to form the student's skills and develop the competencies of the research work, allowing to conduct research work both individually and in a team. The objectives of the practice is the development of scientific research methods.

2.2. Research work in the semester is carried out by students - under the guidance of a supervisor. The direction of the student's research work is determined in accordance with the profile of the master's program.

2.3. Research work should ensure the acquisition of professional competencies by students:

GPC-1 ability for professional operation of modern biotechnological equipment and scientific instruments;

- GPC-2 readiness for communication in oral and written forms in the state language of the Russian Federation and a foreign language to solve problems;

- GPC-4 readiness to use methods of mathematical modeling of materials and technological processes, readiness for theoretical analysis and experimental verification of theoretical hypotheses;

GPC-5 the ability to use modern information technologies for the collection, processing and dissemination of scientific information in the field of biotechnology and related industries, the ability to use databases, software products and resources of the Internet information and telecommunication network (hereinafter referred to as the Internet network) to solve problems professional activity;

- GPC-6 readiness to protect intellectual property and commercialize rights to intellectual property;

SPC-1 readiness for planning, organizing and conducting research work in the field of biotechnology, the ability to correctly process the results of experiments and draw reasonable conclusions and conclusions;

- SPC-2 the ability to analyze scientific and technical information in the field of biotechnology and related disciplines for the purpose of scientific, patent and marketing support for ongoing fundamental research and technological developments;

SPC-3 the ability to present the results of the work performed in the form of scientific and technical reports, reviews, scientific reports and publications using modern information technology capabilities and taking into account the requirements for the protection of intellectual property;

- SPC-9 readiness to use the basic principles of organization of metrological support of production.

2.4. The following types and stages of implementation and control of the research work of the student are provided:

– planning of research work, including familiarization with the topics of research work in this area and the main trends in the development of scientific research, and the choice of a research topic;

– selection, development and implementation of research work in the chosen direction;

– adjustment of the plan for conducting research work;

– drawing up a report on research work;

- protection of the work performed.

The main form of planning and adjusting individual plans for the research work of students is the substantiation of the topic, discussion of the plan and intermediate results of the study within the framework of the research seminar.

2.5. According to the results of the research work, the student must:

Know:

– main scientific problems of agricultural biotechnology, its role and place in modern biotechnology;

– degree of scientific elaboration of the researched problem in the field of biotechnology of products from raw materials of plant and animal origin;

– specifics of the technical presentation of scientific material;

Own:

– modern problems of the biotechnological branch of knowledge;

– basic biotechnological methods for creating new food products;

– skills of scientific discussion;

Be able to:

– apply modern methods of food analysis in scientific research;

– practically carry out scientific research, experimental work in their scientific field, related to the performance of qualifying work;

search for bibliographic sources in both Russian and foreign databases;

– work with information software products and Internet resources, etc.

3. ORGANIZATION OF RESEARCH WORK

3.1. Research work in the semester can be carried out in the following forms:

– fulfillment of tasks of the supervisor in accordance with the approved individual plan of research work (Appendix 2);

– participation in scientific events of FEFU, the Institute of Life Sciences and Biomedicine;

– preparation of reports and speeches at scientific conferences, seminars, symposiums and other scientific events at the regional, all-Russian and international levels;

– preparation and publication of abstracts of reports, scientific articles;

– participation in research projects carried out at the university within the framework of research programs,

– preparation and defense of qualification work.

3.2. Content of research work

The research work is included in Block 2 «Practices» of the educational standard, independently established by the federal state autonomous educational institution of higher professional education «Far Eastern Federal University» in the direction 19.04.01 «Biotechnology», which was adopted by the decision of the FEFU Academic Council, protocol № 06-15 от 04.06.2015, and put into effect by order of the FEFU rector dated 07.07.2015 № 12-13-1282, for professional and practical training of students.

The method of conducting research: dispersed (In the first semester of the first year 216 hours; in the second semester of the first year 468 hours, in the third semester of the second year 216 hours; in the fourth semester of the second year 180 hours).

3.2. Research work:

− Planning of research work and approval of an individual plan of research work.

− Selection and approval of the direction of research, substantiation of relevance and theoretical significance, study of the degree of scientific development of the problematics.

selection, processing and analysis of scientific, technical and patent information on the subject of research using specialized databases using information technologies.

− writing an abstract or a review article on a chosen topic.

− search and development of new effective ways to obtain biotechnological products, creation of modern biotechnologies, including nanobiotechnologies, technologies of recombinant deoxyribonucleic acids, cell technologies;

isolation, identification and analysis of biosynthesis and biotransformation products, obtaining new strains-producers of biological preparations;

− study of biochemical and biological patterns of biosynthesis processes, micro- and macrostoichiometry, micro- and macrokinetics of the growth of populations of microorganisms and cell cultures, interaction of microorganisms,

viruses with cells, metabolic pathways and peculiarities of substrate utilization and synthesis of metabolic products.

− preparation of a report on R&D and its defense.

3.3. Appraisal Form

For certification based on the results of research, the student must submit a report on research (title page form in Appendix 1) with a note from the head.

Certification based on the results of research is carried out in the form of defending a report in the form of a presentation. Reporting form «offset with assessment».

Based on the results of the defense, a test is given with an assessment (excellent, good, satisfactory, unsatisfactory):

«Excellent» - the necessary practical work skills and professional competencies provided for by the program of educational practice are fully formed, the tasks are completed, the quality of their performance is estimated by a number of points close to the maximum.

«Good» - the necessary practical work skills and professional competencies provided for by the program of educational practice are fully formed, the tasks are completed, the quality of none of them is rated with the minimum number of points, some types of tasks are completed with errors or insufficiently carefully.

«Satisfactory» - the necessary practical skills and professional competencies are basically formed, the gaps are not significant, some of the completed tasks contain errors.

«Unsatisfactory» - the necessary practical skills and professional competencies provided for by the program of training practice are not formed, all completed training tasks contain gross errors, additional independent work on the report materials will not lead to any significant improvement in the quality of assignments.

4. EDUCATIONAL AND METHODOLOGICAL AND INFORMATION SUPPORT OF PRODUCTION PRACTICE

1. Scientific research work of the student: educational-practical manual / N. M. Rozanova. Moscow: KnoRus, 2016 .-- 255 p. http://lib.dvfu.ru:8080/lib/item?id=chamo:797721&theme=FEFU

2. General biology and microbiology: guidelines for laboratory work, part 3 / Pacific State University of Economics; [comp. : J. G. Prokopets, E. S. Fischenko, S. V. Zhuravlev]. Vladivostok: Publishing House of the Pacific Economic University, 2010. - 44 p. http://lib.dvfu.ru:8080/lib/item?id=chamohaps5757292&theme=FEFU

3. Sarafanova, L.A. Nutritional Supplements: Encyclopedia - 3rd ed., Revised. and add. / L.A. Sarafanova. - St. Petersburg: Profession, 2011 .- 776 p. http://lib.dvfu.ru:8080/lib/item?id=chamo:342063&theme=FEFU

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Additional literature:

1. Auerman, L.Ya. Technology of baking production: Textbook / L.Ya. Auerman. - 9th ed., Revised. and add. / Under the total. ed. L.I. Puchkova. - St. Petersburg: Profession, 2009. -- 416 p. http://lib.dvfu.ru:8080/lib/item?id=chamo:316025&theme=FEFU

2. Borisenko, L.A. Biotechnological basis for the intensification of production of salted meat products / A.A. Borisenko, A.A. Bratsikhin. - M .: DeLi print, 2010 .-- 163 p. http://lib.dvfu.ru:8080/lib/item?id=chamo:342770&theme=FEFU

3. Ivashov, V.I. Technological equipment for meat industry enterprises: a textbook for high schools / V.I. Ivashov. - St. Petersburg .: GIORD, 2010. - 736 pp. Http://lib.dvfu.ru:8080/lib/item?id=chamo{59114&theme=FEFU

4. Rogov, I.A. General technology of meat and meat products / I.A. Rogov, A.G. Zabashta, G.P. Kazyulin. - M.: KolosS, 2010 .-- 367 p. http://lib.dvfu.ru:8080/lib/item?id=chamo{40686&theme=FEFU

5. Krus, G.N. Technology of milk dairy products: Textbook / G.N. Krus, A.G. Khramtsov, 3.V. Volokitina, S.V. Karpychev; Ed. A.M. Shalyginoy. - M: KolosS, 2006. -- 455 p. http://lib.dvfu.ru:8080/lib/item?id=chamo:351156&theme=FEFU

The list of resources of the information and telecommunication network «Internet».

1. http://elibrary.ru Scientific Electronic Library eLIBRARY.RU
2. The electronic library system "Doe" http://e.lanbook.com/
3. The electronic library system "IPRBOOK" http://www.iprbookshop.ru
4. Scopus http database: http://www.scopus.com/home.url
5. Web of Science database http://apps.webofknowledge.com/
6. Database of full-texting academic journals in China http://oversea.cnki.net/
7. The electronic library of dissertations of the Russian State Library http://diss.rsl.ru/
8. EBSCO Electronic Databases http://search.ebscohost.com/

Compiled by: Professor of the Department of Food Sciences and Technologies, Doctor of Biological Sciences, Professor Kalenik T.K., Associate Professor of the Department of Food Sciences and Technologies Novitckaia E.G.

The practice program was discussed at a meeting of the Department of Food Science and Technology, protocol №. 1 «28» September 2021.

ANNEX 1

Research report title page form

MINISTRY OF EDUCATION AND SCIENCE OF THE RUSSIAN FEDERATION
Federal state autonomous educational institution
of higher education
«Far Eastern Federal University»
(FEFU)

INSTITUTE OF LIFE SCIENCES AND BIOMEDICINE (SCHOOL)

The report is protected with a rating of _____
"_____" _____ 20__ Y

Director of DPNiT
_____ full name.

.

REPORT

On practical training (Research work) on the topic
_____
(Full name of the enterprise)

Student gr. _____ groups _____ (_____)
Signature full name
Supervisor
from the university _____ (_____)
Signature full name

ANNEX 2

MINISTRY OF EDUCATION AND SCIENCE OF THE RUSSIAN FEDERATION
Federal state autonomous educational institution
of higher education
«Far Eastern Federal University»
(FEFU)

INSTITUTE OF LIFE SCIENCES AND BIOMEDICINE (SCHOOL)

«AGREED»
Head of education program

_____FULL NAME.
"___" _____20__

INDIVIDUAL JOB

By _____

(Type of practice)

Student ___ group's _____

(Name of student)

Educational program _19.04.01 "Biotechnology"

Base (place, organization) of practice
_____

Duration of practice from _____20___Y. To _____ 20___ Y

Generalized wording of the assignment	

Task Schedule

The name of the tasks (activities) that make up the task	Date of completion of the task (event)
1.	
2.	
3.	

Head of Practice _____ _____

signature full name, position

MINISTRY OF EDUCATION AND SCIENCE 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 SISTEMS»

AGREED

Head of OP

Kalenik T.K.
(signature) (full name)

«28» September 2021 г.

APPROVE

Head of VSP

Kalenik T.K.
(signature) (full name)

«28» September 2021 г.

WORKING PROGRAM OF PRACTICE

WORK EXPERIENCE INTERNSHIP. PRACTICE IN OBTAINING PROFESSIONAL SKILLS AND EXPERIENCE IN PRODUCTION AND TECHNOLOGICAL ACTIVITIES (INCLUDING TECHNOLOGICAL PRACTICE)

19.04.01 Biotechnology
Name of the educational program: Agri-Food Biotechnology

Master's program

Vladivostok

2022

1. REGULATORY DOCUMENTATION REGULATING THE PROCESS OF ORGANIZATION AND PRACTICE

The internship program was developed in accordance with the requirements of the educational standard, independently established by FEFU, approved by order of the rector dated July 7, 2015 No. 12-13-1282

2. FIELD OF MASTERING PRODUCTION AND TECHNOLOGICAL (INCLUDING TECHNOLOGICAL PRACTICE) PRACTICE

The objectives of production and technological (including technological practice) practice (including technological practice) are to consolidate the theoretical knowledge gained in the study of compulsory disciplines; acquisition of professional skills in future professional activity.

3. OBJECTIVES OF PRODUCTION AND TECHNOLOGICAL (INCLUDING TECHNOLOGICAL PRACTICE) PRACTICE

The objectives of practice in obtaining professional skills and experience in production and technological activities (including technological practice) are:

- collection of material using information and communication technologies and taking into account the basic requirements of information security to solve standard tasks of professional activity;

− familiarity with the main technological equipment, technological processes and safety requirements;

− familiarization with normative and technical documentation, regulations, veterinary norms and rules in the production process.

4. THE PLACE PRODUCTION AND TECHNOLOGICAL (INCLUDING TECHNOLOGICAL PRACTICE) PRACTICES IN THE EP STRUCTURE

Block B2 «Practices, including research work (R&D)» of the educational standard, independently established by FEFU, in the direction of 19.04.01 «Biotechnology», approved by the Ministry of Education and Science of the Russian Federation of 07.07.2015 No. 12-13-1282, is mandatory, variable and is a type of training session that is directly focused on the professional and practical training of students.

Technological practice is the second stage of practical training at the level of higher education - magistracy and is aimed at obtaining by students professional skills and abilities, including professional skills and professional experience.

Technological practice is carried out in third-party organizations that have the necessary human and scientific and technical potential (exit).

The Technological practice is based on the theoretical development of such disciplines as: «Methodology of scientific research», «Modern methods of research of raw materials and food products», «Raw material base for the production of functional food products», «Technochemical characteristics and composition of raw materials in the design of functional products».

The passage of technological practice by students is an integral part of the educational process and is necessary for the subsequent study of the disciplines of the professional cycle (“Biotechnological features of the production of products of plant origin”, “Biotechnological features of the production of products of animal origin”, “Biotechnological process control systems”, “Modern production technologies for manufacturing and storage food products”, “Design and organization of production of agro-food biotechnology”, “Safety and biosafety of agro-food raw materials and food products”, etc.), as well as during other types of practice (undergraduate).

5. TYPES, METHODS, PLACE AND TIME OF TECHNOLOGICAL PRACTICE

Type of practice: practice for obtaining professional skills and experience of professional activity (including technological).

Method of conducting - stationary / traveling (at the choice of the student).

Practice time: concentrated (in the 2nd semester).

The place of practice is the structural divisions of FEFU (Department of Food Science and Technology), as well as organizations whose activities correspond to professional competencies mastered in the framework of the educational program 19.04.01 Biotechnology (at the student's choice).

Internship in third-party organizations is based on contracts, according to which students are provided with internship places, as well as organizational and informational and methodological assistance in the process of internship.

Students can independently propose places for internships. The student begins the internship only after the official confirmation of the consent of the organization (enterprise) with the conclusion of the contract according to the general model established by FSAEI HE "Far Eastern Federal University".

When determining places of practice for the disabled and persons with disabilities, the recommendations of the medical and social expertise, reflected in the individual rehabilitation program for the disabled, regarding the recommended conditions and types of work, should be taken into account. If necessary, a partner organization or a structural subdivision of FEFU that accepts internships for students who are classified as disabled, creates special jobs for internships in accordance with the nature of health disorders, as well as taking into account the professional type of activity and the nature of work performed by the student labor functions.

6. STUDENT COMPETENCES FORMED AS A RESULT OF TECHNOLOGICAL PRACTICE

Code and wording of competency	Competency Stages	
GC-5 the ability to generate ideas in scientific and professional activities	Knows	research methods and innovations in scientific and professional activities
	Is able	generate ideas in scientific and professional activities
	Owns	the ability to generate ideas in scientific and professional activities
GPC-1 ability to professionally operate modern biotechnological equipment and scientific instruments	Knows	rules and methods for developing technological projects
	Is able	develop technological projects as part of a team of authors
	Owns	knowledge in the development of technological projects
SPC -8 ability to conduct a feasibility study of production and prepare technical and economic documentation	Knows	types of technological process in food production
	Is able	apply knowledge in the design of a technological process in food production
	Owns	the ability to conduct a technical and economic analysis of production and draw up technical and economic documentation
SPC-9 willingness to use the basic principles of organization of metrological support of production	Knows	basic principles of organizing metrological support for the production of agricultural raw materials and food products
	Is able	use the basic principles of organizing metrological support for the production of agricultural raw materials and food products
	Owns	skills in using the basic principles of organizing metrological support for the production of agricultural raw materials and food products
SPC-11 the ability to ensure technological discipline, the sanitary and hygienic mode of operation of the enterprise, the maintenance of technological equipment in proper technical condition	Knows	sanitary and hygienic mode of operation of the enterprise, maintenance of technological equipment in proper technical condition
	Is able	ensure technological discipline, sanitary and hygienic mode of operation of the enterprise, maintenance of technological equipment in proper technical condition
	Owns	the skill of ensuring the sanitary and hygienic mode of operation of the

		enterprise, the maintenance of technological equipment in proper technical condition
SPC-12 the ability to plan and carry out activities to ensure safety at work, to monitor and protect the environment	Knows	fundamentals of industrial safety, normative and technical documentation, regulations, veterinary norms and rules
	Is able	apply knowledge in practice in the field of industrial safety, monitoring and environmental protection
	Owns	ways to ensure safety at work, monitor and protect the environment
SPC-13 readiness for organizing, planning and managing existing biotechnological processes and production	Knows	principles of adaptation of modern versions of planning and quality management systems to specific production conditions based on international standards
	Is able	adapt modern versions of planning and quality management systems to specific production conditions based on international standards
	Owns	willingness to adapt modern versions of planning and quality management systems to specific production conditions based on international standards
SPC-14 the ability to use standard and develop new methods for engineering calculations of technological parameters and equipment for biotechnological production	Knows	typical methods of engineering calculations of technological parameters and equipment of biotechnological productions
	Is able	use standard and develop new methods for engineering calculations of technological parameters and equipment for biotechnological production
	Owns	knowledge in the field of engineering calculations of technological parameters and equipment of biotechnological productions
SPC-15 willingness to ensure the stability of production indicators and product quality	Knows	norms of production quality indicators
	Is able	ensure the stability of production indicators and product quality
	Owns	the ability to ensure the stability of production indicators and product quality

SPC-16 the ability to carry out the effective operation of control, automation and automated production control, chemical-technical, biochemical and microbiological control	Knows	operation of control, automation and automated production control, chemical-technical, biochemical and microbiological control
	Is able	to carry out the effective operation of means of control, automation and automated production control, chemical-technical, biochemical and microbiological control
	Owns	knowledge of the operation of control equipment, automation and automated production control, chemical-technical, biochemical and microbiological control
SPC-17 readiness for pilot testing of technology and scaling of processes	Knows	rules for conducting pilot testing of technology and scaling processes
	Is able	Conduct pilot testing of technology and process scaling
	Owns	Knowledge in conducting pilot testing of technology and scaling processes
SPC-18 ability to develop and scientifically substantiate schemes for optimal integrated certification of biotechnological products	Knows	schemes for optimal comprehensive certification of biotechnological products
	Is able	develop and justify schemes for optimal integrated certification of biotechnological products
SPC-18 ability to develop and scientifically substantiate schemes for optimal integrated certification of biotechnological products	Knows	schemes for optimal comprehensive certification of biotechnological products
SPC-19 the ability to analyze the indicators of the technological process for compliance with the original scientific developments	Knows	indicators of the technological process for compliance with the original scientific developments
	Is able	analyze the indicators of the technological process for compliance with the original scientific developments
	Owns	the ability to analyze the indicators of the technological process for compliance with the original scientific developments

7. STRUCTURE AND CONTENT OF TECHNOLOGICAL PRACTICE

The total complexity of technological practice is 4 credits, 216 hours.

№ п/п	Sections (stages) of practice	Types of work in practice, including independent work of students and laboriousness (in hours)				Current Control Forms
1	Preparatory stage: - Obtaining documents for practice (direction, diary, assignment); - Arrival at the place of practice and an introductory briefing; - Organization of the workplace and acquaintance with the team.	Obtaining documents for practice (2 h)	Introductory lecture (2 h)	Safety briefing (2 h)		Making entries in the diary. Oral conversations.
2	The main stage: - Study of the organizational structure of the base of practice; - the study of regulatory and technical documentation; - Implementation of individual production tasks; - The study of practical activities.	Accomplishment of practice tasks in accordance with the program (108h)	Safety briefing at the enterprise (2 hours)	Study of materials and documents at the place of practical training (44 h)	Processing and analysis of the obtained practice materials (20 h)	Making entries in the diary. Oral conversations.
3	The final stage: - Processing and systematization of the received material; - Preparation of a report on the passage of organizational and managerial practice; - Protection of the report on organizational and management practices.	Report writing (20h)	Presentation preparation (14 h)	Report Protection (2 hours)		Score with grade

8. EDUCATIONAL AND METHODOLOGICAL SUPPORT FOR INDEPENDENT WORK OF STUDENTS IN TECHNOLOGICAL PRACTICE

Technological practice is aimed at familiarizing students with the material and technical support of the enterprise / workshop / laboratory, software and modern methods for analyzing raw materials and materials.

During the technological practice, regardless of the place of its passage, students should pay special attention to issues related to life safety, labor protection and industrial sanitation. To do this, it is necessary to consider the principles of state and public control over compliance with labor laws, the organization of the life safety service and its tasks.

An individual task (Appendix 1) is issued to the student at the university by the head of the practice before the start of the practice. It should be associated with the technology of obtaining one of the types of meat products.

Control questions:

1. Give the characteristics, specialization and production profile of the food enterprise.

2. Describe the material and technical base, resource area and capacity of the enterprise.

3. What is the operating mode of the enterprise (how many shifts per day, month)?

4. Give the structure of the organization of the enterprise, the management scheme.

5. Describe the range of products.

6. Provide a description of the production lines, describe the production schemes for the main types of products.

7. What is the role and importance of the laboratory in the enterprise?

8. What methods of analysis of raw materials, semi-finished products and finished products are carried out at the enterprise?

9. What forms of journals are presented in the laboratory and at the production sites of the enterprise?

10. What measures are taken for labor safety, for sanitary and hygienic, fire and preventive measures at the enterprise?

11. What measures are taken at the enterprise to improve working conditions?

12. How is the power supply, gas supply and water supply of the enterprise carried out?

13. How is the delivery of finished products to retail chains?

14. Measures to reduce defects in production and the return of finished products with an expired shelf life from retail chains.

15. What is the area for the sale of the company's products?

9. FORMS OF CERTIFICATION (BY THE RESULTS OF PRACTICE)

Before passing the technological practice, the student receives an individual task from the head of the practice from the university, the content and volume of which are negotiated with the head of the practice.

Based on the results of the internship, the student draws up a report on the internship, participates in the final conference with a presentation of the results of the internship, after which he receives a credit with an assessment.

The practice report should contain the following elements:

− title page (Appendix 3);

- task and schedule of practice (Appendix 1);

− introduction;

− report on production activities in the process of internship;

− sources of information;

The report is drawn up in accordance with the "Requirements for the design of written work performed by students and listeners of FEFU".

The scope of the report depends on the topic of the individual assignment.

Sample report structure

1. General information about the enterprise and its brief description (history, geographical location, list of main workshops, buildings and structures indicating their purpose; information about the main services of the enterprise).

2. The structure of the enterprise and its individual divisions, its raw material base.

3. The range of products and their characteristics. Regulatory documents for manufactured products. Design and operating capacity of the enterprise.

4. Individual task. Technological regulations for the production of one of the types of products (requirements for raw materials and finished products, recipe, methods of technological and chemical control, description of the main technological stages of production and methods of waste disposal).

5. Characteristics of the finished product (including types of packaging, conditions of storage, transportation, sales, types of control of finished products).

6. Conclusion.

By agreement with the head of practice from the university and depending on the place of passing this type of practice, the structure of the report or its individual parts may change.

After completing the practice and completing the report in accordance with the requirements, the student submits his report for defense to the head of the university. Based on the results of the defense, a test is given with an assessment (excellent, good, satisfactory, unsatisfactory):

"Excellent" - the necessary practical work skills and professional competencies provided for by the internship program are fully formed, the tasks are completed, the quality of their performance is estimated by a number of points close to the maximum.

"Good" - the necessary practical skills and professional competencies provided for by the program of practical training are fully formed, the tasks are completed, the quality of none of them is rated with a minimum number of points, some types of tasks are completed with errors or insufficiently carefully.

"Satisfactory" - the necessary practical skills and professional competencies are basically formed, the gaps are not significant, some of the completed tasks contain errors.

“Unsatisfactory” - the necessary practical work skills and professional competencies provided for by the internship program are not formed, all completed training assignments contain gross errors, additional independent work on the report materials will not lead to any significant improvement in the quality of assignments.

10. EDUCATIONAL AND METHODOLOGICAL AND INFORMATION SUPPORT OF TECHNOLOGICAL PRACTICE

The main:

1 Antipova, L. V. Fundamentals of biotechnology for processing agricultural products: a textbook for universities / L. V. Antipova, O. P. Dvoryaninova; under the scientific editorship of L. V. Antipova. - 2nd ed., revised. and additional - Moscow: Yurayt Publishing House, 2021. - 204 p. - (Higher education). - ISBN 978-5-534-12435-4. — Text: electronic // Educational platform Urayt [website]. — URL: https://urait.ru/bcode/473735 (date of access: 02/01/2021).

2 Biotechnology: textbook and workshop for universities / edited by N. V. Zagoskina, L. V. Nazarenko. - 3rd ed., Rev. and additional - Moscow: Yurayt Publishing House, 2020. - 381 p. - (Higher education). — ISBN 978-5-534-13546-6. — Text: electronic // Educational platform Urayt [website]. — URL: https://urait.ru/bcode/467724 (date of access: 02/01/2021).

3 Plant biotechnology: textbook and workshop for universities / L. V. Nazarenko, Yu. I. Dolgikh, N. V. Zagoskina, G. N. Raldugina. — 2nd ed., corrected. and additional - Moscow: Yurayt Publishing House, 2021. - 161 p. - (Higher education). — ISBN 978-5-534-05619-8. — Text: electronic // Educational platform Urayt [website]. — URL: https://urait.ru/bcode/471466 (date of access: 02/01/2021).

4 Equipment for biotechnological productions: a textbook for universities / I. A. Evdokimov [and others]; edited by I. A. Evdokimov. - Moscow: Yurayt Publishing House, 2020. - 206 p. - (Higher education). — ISBN 978-5-534-12433-

0. — Text: electronic // Educational platform Urayt [website]. — URL: https://urait.ru/bcode/447483 (date of access: 02/01/2021).

5 Organization of biotechnological production: textbook for universities / A. A. Krasnoshtanova [and others]; edited by A. A. Krasnoshtanova. - Moscow: Yurayt Publishing House, 2021. - 170 p. - (Higher education). - ISBN 978-5-534-13029-4. — Text: electronic // Educational platform Urayt [website]. — URL: https://urait.ru/bcode/448767 (date of access: 02/01/2021).

6 Chechina, O.N. General biotechnology: textbook for universities / O.N. Chechina. - 3rd ed., revised. and additional - Moscow: Yurayt Publishing House, 2021. - 266 p. - (Higher education). — ISBN 978-5-534-13660-9. — Text: electronic // Educational platform Urayt [website]. — URL: https://urait.ru/bcode/474715 (date of access: 02/01/2021).

Additional:

1 Auerman, L.Ya. Technology of baking production: Textbook / L.Ya. Auerman. - 9th ed., Revised. and add. / Under the total. ed. L.I. Puchkova. - St. Petersburg: Profession, 2009 .-- 416 p. http://lib.dvfu.ru:8080/lib/item?id=chamo:316025&theme=FEFU

2 Borisenko, L.A. Biotechnological basis for the intensification of production of salted meat products / A.A. Borisenko, A.A. Bratsikhin. - M .: DeLi print, 2010 .-- 163 p. http://lib.dvfu.ru:8080/lib/item?id=chamo:342770&theme=FEFU

3 Ivashov, V.I. Technological equipment for meat industry enterprises: a textbook for high schools / V.I. Ivashov. - St. Petersburg .: GIORD, 2010. - 736 pp. Http://lib.dvfu.ru:8080/lib/item?id=chamo{59114&theme=FEFU

4 Rogov, I.A. General technology of meat and meat products / I.A. Rogov, A.G. Zabashta, G.P. Kazyulin. - M.: KolosS, 2010 .-- 367 p. http://lib.dvfu.ru:8080/lib/item?id=chamo{40686&theme=FEFU

The list of resources of the information and telecommunication network "Internet".

1. http://elibrary.ru Scientific Electronic Library eLIBRARY.RU

2. The electronic library system "Doe" http://e.lanbook.com/
3. The electronic library system "IPRBOOK" http://www.iprbookshop.ru
4. Scopushttp database http://www.scopus.com/home.url
5. Web of Science database http://apps.webofknowledge.com/
6. Database of full-texting academic journals in China http://oversea.cnki.net/
7. The electronic library of dissertations of the Russian State Library http://diss.rsl.ru/
8. EBSCO Electronic Databases http://search.ebscohost.com/

11. MATERIAL AND TECHNICAL SUPPORT OF TECHNOLOGICAL PRACTICE

The practice bases may be workshops and laboratories of industrial enterprises of food and processing profile (meat processing enterprises) equipped with modern technological equipment and testing instruments that allow controlling the quality of raw materials and manufactured products, laboratories for analyzing and evaluating the quality of food products.

Approximate practice bases: Vladkhleb OJSC bread production enterprise; enterprises for the production of milk and dairy products: LLC Artyomovsky Dairy Plant, LLC Arsenyevsky Dairy Plant, LLC HAPK Green Agro; enterprises for the production of meat and sausages: LLC Elephant, LLC Nikolsk, LLC Ratimir; enterprise for the production of confectionery: OJSC "Primorsky Confectioner" and other research organizations, enterprises of food and processing industries.

№ п/п	Name of special rooms and premises for independent work	Equipped with special rooms and rooms for independent work
3	690022, Primorsky Territory, Vladivostok, Russky Island, Saperny Peninsula, village of Ajax 10, auditorium M 311. M311- The classroom for lecture-type classes, seminar-type classes, group and individual consultations,	Training furniture for 25 workplaces, teacher's place (table, chair), Analytical and technological equipment (M311): Milk centrifuge with heating ЦЛМ 1-12; Liquid thermostat LOIP Lt-208a, volume 8l, 120x150 / 200mm; Analyzer of milk quality Lactan 1-4 mod. 230; PH-millivolmeter with tripod pH-150MI; VSP

	ongoing monitoring and interim certification.	1.5-2-3T scales; Refrigerator "Ocean-RFD-325B"; Drying cabinet, stainless steel chamber. steel, 58l; electric stove 111CH 101-226589; PE-6110 magnetic stirrer with heating; VNZh-0,3-KhS3 viscometer (d-1.41) glass capillary; Tripod PE-2710 lab. for burettes. Multimedia equipment: Monoblock Lenovo C360G-i34164G500UDK; Screen with electric 236 * 147 cm Trim Screen Line; DLP projector, 3000 ANSI Lm, WXGA 1280x800, 2000: 1 EW330U Mitsubishi; Subsystem of specialized hardware mounts CORSA-2007 Tuarex; Video Switching Subsystem: DVI DXP 44 DVI Pro Extron matrix switcher; Extender DVI over twisted pair DVI 201 Tx / Rx; Subsystem of audio switching and sound reinforcement; ceiling mount speaker SI 3CT LP Extron; Sennheiser EW 122 G3 UHF Microphone Lavalier Radio System with a wireless microphone and receiver; DMP 44 LC Extron digital audio processor; Extron IPL T S4 Network Management Controller; Wireless LANs for students are provided with a system based on 802.11a / b / g / n 2x2 MIMO (2SS) access points.
4	690022, Primorsky Territory, Vladivostok, Russky Island, Saperny Peninsula, village of Ajax 10, auditorium M621. M621- The classroom for the implementation of design work, lecture-type classes, seminar-type classes, group and individual consultations, ongoing monitoring and interim certification.	Training furniture for 17 workplaces, Teacher's place (table, chair), Computer class: Monoblock Lenovo C360G-i34164G500UDK 19.5 "Intel Core i3-4160T 4GB DDR3-1600 SODIMM (1x4GB) 500GB Windows Seven Enterprise - 17 pcs; Wired LAN - Cisco 800 series; Wireless LAN for students is provided with a system based on 802.11a / b / g / n 2x2 MIMO (2SS) access points.
6	690922, Primorsky Territory, Vladivostok, Russky Island, Saperny Peninsula, village of Ajax, 10, building A, aud. A1017. Reading rooms of the FEFU Scientific Library with open access to the fund (building A - level 10) Audience for independent work of graduate students.	The room is equipped with specialized training furniture (seats - 15) Equipment: Monoblock Lenovo C360G-i34164G500UDK - 15 pcs. Integrated Polymedia FlipBox Touchscreen Display - 1 pc. Copier-printer-color scanner in e-mail with 4 trays Xerox WorkCentre 5330 (WC5330C - 1 pc.

In order to ensure special conditions for the training of disabled and disabled people in FEFU, all buildings are equipped with ramps, elevators, lifts, specialized places, equipped with toilets, information and navigation support signs.

For people with disabilities and people with disabilities, the choice of practice places is consistent with the requirement of their accessibility for these students and the practice is conducted taking into account the peculiarities of their psychophysical development, individual capabilities and health status.

Compiled by: Professor of the Department of Food Sciences and Technologies, Doctor of Biological Sciences, Professor Kalenik T.K., Associate Professor of the Department of Food Sciences and Technologies Novitckaia E.G.

The practice program was discussed at a meeting of the Department of Food Science and Technology, protocol №. 1 «28» September 2021.

ANNEX 1

MINISTRY OF EDUCATION AND SCIENCE 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 SISTEMS»

«AGREED»
Head of education program

_____FULL NAME.
"____" _____20__

INDIVIDUAL JOB

By _____

(Type of practice)

Student ___ group's _____

(Name of student)

Educational program _19.04.01 "Biotechnology"

Base (place, organization) of practice
_____

Duration of practice from _____20___Y. To _____ 20___ Y

Generalized wording of the assignment	

Task Schedule

The name of the tasks (activities) that make up the task	Date of completion of the task (event)
1.	
2.	
3.	

Head of Practice _____ _____

signature full name, position

APPENDIX 2

Practice Diary Example

Far Eastern Federal University

INSTITUTE OF LIFE SCIENCES AND BIOMEDICINE (SCHOOL)

Head of Practice from FEFU

_____

Head of practice from the host organization

_____

A DIARY

By _____ practice

Student _____ course _____ group

By program_____

Place of Practice _____

Duration of practice _____ weeks

_____

3. Student calendar

№ п\п	Name of work	Calendar dates		Surname of head of practice
		start	ending	

4. Student work diary

date of	Summary of work intern	Signature a manager

3. Report protection results
The report is protected by _____ _____ 20___
With a rating of _____

Director of DPNiT _____ Full name

ANNEX 3

Practice report title page form

MINISTRY OF EDUCATION AND SCIENCE 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 SISTEMS»

The report is protected with a rating of _____
"_____" _____ 20__ Y

Director of DPNiT
_____ Surname I.O.

.

REPORT

on the passage of industrial and Work experience and internship.
Technological practice in

_____
(Full name of the enterprise)

Student gr. _____ groups _____ (_____)
Signature full name
Supervisor
from the university _____ (_____)
Signature full name

APPENDIX 4

Form of referral to industrial practice

MINISTRY OF EDUCATION AND SCIENCE 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 SISTEMS»

N A P R A V L E N I E

To practice _____

Student of the master course

_____Last name First name _____group

(Full Name)

Seconded to_____

Name of base organization

Address_____

Order on referral to practical training No. _____

For passing _____

In the direction of preparation 19.04.01 Biotechnology for a period from _____ 201 to _____ 201 (continuous / discrete)

Head of Practice
Professional skills and experience in
Professional activity
M.P. _____ _____ _____

(Position, academic title) (Signature) (Full name)

Marks on the implementation and terms of practice

Company name	Arrival and Departure Mark	Signature, decryption of signature, stamp
Name of enterprise, organization in accordance with the contract	*Arrived* __.__.*20*__ г.	
	Arrived __.__.*20*__ г.	

Head of Practice _____ _____

signature full name, position

MINISTRY OF EDUCATION AND SCIENCE OF THE RUSSIAN FEDERATION
Federal state autonomous educational institution
of higher education
«Far Eastern Federal University»
(FEFU)
INSTITUTE OF LIFE SCIENCES AND BIOMEDICINE (SCHOOL)

AGREED	APPROVE
Head of OP	Head of VSP
Kalenik T.K.	Kalenik T.K.
(signature) (full name)	(signature) (full name)
«28» September 2021 г.	«28» September 2021 г.

WORKING PROGRAM OF PRODUCTION PRACTICE

Work experience internship. Practice in obtaining professional skills and experience in organizational and management activities

19.04.01 Biotechnology
Name of the educational program: Agri-Food Biotechnology

Master's program

Vladivostok

2021

1. REGULATORY DOCUMENTATION REGULATING THE PROCESS OF ORGANIZATION AND PRACTICE

The program was developed in accordance with the requirements of the educational standard of higher education, independently established by FEFU 19.04.01 Biotechnology dated 07.07.2015 No. 12-13-1282.

2. OBJECTIVES OF MASTERING INDUSTRIAL PRACTICE

The purpose of the practice for obtaining professional skills and experience in organizational and managerial activities is to train undergraduates in the skills of organizing management; collection, analysis and use of information for making managerial decisions.

Practice in obtaining professional skills and experience in organizational and management activities (organizational and managerial practice) is provided after theoretical training in the second year and involves consolidating the knowledge and skills acquired by students as a result of mastering theoretical courses, develops practical skills and contributes to the complex formation of general cultural and professional competencies of students.

3. OBJECTIVES OF INDUSTRIAL PRACTICE

The objectives of the practice for obtaining professional skills and experience in organizational and managerial activities are:

- organizing the work of a team of performers, making executive decisions in a spectrum of opinions, determining the order of work;
- search for optimal solutions when creating new products, taking into account the requirements of the science of nutrition, quality and cost, safety and environmental friendliness.
- organization in the subdivision of work on the development and improvement of the technology of food products of functional and specialized nutrition;
- organization of work on the prevention of industrial injuries, occupational diseases, prevention of environmental violations;

- preparation of applications for inventions and execution of documents;
- development of quality management systems for the technology of food production from vegetable raw materials based on international quality systems.

4. THE PLACE OF INTERNSHIP IN THE STRUCTURE OF THE EP

Practice for obtaining professional skills and experience in organizational and managerial activities is provided after theoretical training in the second year and involves consolidating the knowledge and skills acquired by students as a result of mastering theoretical courses, develops practical skills and contributes to the integrated formation of general cultural and professional competencies of students.

In accordance with the plan of the educational process, the practice of obtaining professional skills and experience in organizational and managerial activities is carried out in the 3rd semester, which is 3 credit units or 108 hours.

The practice of obtaining professional skills and experience in the organizational and managerial activities of undergraduates is carried out taking into account the scientific interests of undergraduates and provides for classes in subjects and disciplines that correspond to the research interests of undergraduates.

The practice of obtaining professional skills and experience in organizational and managerial activities is based on the development of training courses in the disciplines of the basic part:

- Administration and management of agriculture and agro-industrial complex.
- Methods of research in biotechnology.
- Organizational and managerial practice is based on the development of training courses of disciplines of the professional cycle:
- Safety and biosecurity of agro-food raw materials and food products.
- Design and organization of biotechnological production.
- Management systems for quality and safety of bioproducts.
- Technical regulation and regulatory support of agro-food production.

- Control systems for biotechnological processes.

Organizational and managerial practice is based on the development of the practical part of the training course:

- Practice for obtaining primary professional skills and abilities.
- Practice for obtaining professional skills and experience of professional activity (including technological practice).

The knowledge and skills acquired and consolidated in the framework of the practice of obtaining professional skills and experience in organizational and managerial activities allow achieving the required level of mastering the master's program. Also, when passing the organizational and managerial practice, the undergraduate forms and develops his practical skills, abilities, universal and professional competencies.

In the process of internship in obtaining professional skills and experience in organizational and managerial activities, theoretical knowledge is used to solve specific practical problems, providing a combination of theoretical training with practical activities at enterprises.

In the course of practice in obtaining professional skills and experience in organizational and managerial activities, undergraduates should get an idea of the real work of masters as performers or junior managers in various departments of the administrative apparatus; formation of the organizational and managerial structure of organizations; organizing the work of performers (teams of performers) to develop and improve the technology of functional and specialized food products; collection, processing and analysis of information about the factors of the external and internal environment of the organization for the organization of work on the prevention of industrial injuries, occupational diseases, the prevention of environmental violations; evaluation of the effectiveness of projects; preparation of applications for inventions and execution of documents based on the results of information and analytical activities; assessment of the effectiveness of quality systems.

5. TYPES, METHODS, PLACE AND TIME OF INTERNSHIP

Type of practice: Practice for obtaining professional skills and experience in organizational and managerial activities for students of the direction of preparation 19.04.01 Biotechnology is organized dispersed in the 3rd semester of the curriculum.

The method of carrying out is stationary.

Place of practice:

The place of practice is the structural divisions of FEFU (Department of Food Science and Technology), as well as organizations whose activities correspond to the professional competencies mastered in the framework of the educational program 19.04.01 Biotechnology.

During the practice, undergraduates perform organizational and managerial activities:

- study of documents of normative support of educational activities of FEFU. In the process of working with regulatory documents, a master student must study the structure and content of the HE HE in the direction and highlight the requirements for the professional training of a bachelor and / or master; analyze the curriculum for the preparation of a bachelor (specialist) and the work program of the provided course;
- familiarization with the place of internship in order to study the management system, scale and legal form of the enterprise;
- study of the state and prospects for the development of production, economic and financial activities; study the main technical and economic indicators of the organization's work in recent years;
- analysis of the personnel composition of the enterprise or structural subdivision of the enterprise;
- drawing up diagrams reflecting the production and organizational structure of the enterprise;
- study of the composition and content of the functions performed by a certain structural unit of the enterprise, identify mechanisms for interaction with

other units, form proposals for improving the production activities of the enterprise/structural unit.

Internship is possible on the basis of educational institutions, enterprises of all forms of ownership offered by the undergraduate in the order of his personal initiative, in agreement with the graduating department (Department).

The object of study are:

- documents of normative support of educational activities of FEFU. In the process of working with regulatory documents, a master student must study the structure and content of the Federal State Educational Standard of Higher Professional Education in the direction and highlight the requirements for the professional training of a bachelor and / or master; analyze the curriculum for the preparation of a bachelor (specialist) and the work program of the provided course;
- personnel structure of the enterprise or structural subdivision of the enterprise;
- enterprise management system;
- the composition and content of the actually performed functions of a certain structural unit of the enterprise, to identify mechanisms for interaction with other units, to form proposals for improving the production activities of the enterprise/structural unit;
- quality management systems for food production technology based on international quality systems;
- other forms of work determined by the supervisor.

The specific content of all types of organizational and managerial activities is reflected in the individual plan of organizational and managerial practice of the undergraduate, compiled by the undergraduate in accordance with the assignment of the head of practice.

In accordance with his individual plan, the undergraduate must participate in all types of organizational and managerial work of the department of the departments of the School or enterprise.

The results of the work carried out are recorded in the practice diary for obtaining professional skills and experience in organizational and managerial activities.

6. STUDENT COMPETENCES FORMED AS A RESULT OF INTERNSHIP

Code and wording of competency	Competency Stages	
SPC-7 readiness to organize the work of a team of performers, make executive decisions in a spectrum of opinions, determine the order of work	Knows	tasks of professional activity, technological processes of food production, ways of organizing the work of the team
	Is able	apply knowledge about the technological process of production to organize work
	Owns	experience in the practical application of knowledge of the technological process of food production
SPC-8 ability to conduct a technical and economic analysis of production and draw up technical and economic documentation	Knows	normative and technical documentation, regulations, veterinary norms and rules, basic principles for the preparation of technical and economic documentation
	Is able	apply knowledge about the technological process of production to organize work, conduct a feasibility study of production
	Owns	experience in the practical application of knowledge about the technical and economic analysis of production
SPC-9 readiness to use the basic principles of organization of metrological support of production	Knows	normative and technical documentation, regulations, veterinary norms and rules
	Is able	rational use of regulatory and technical documentation, regulations, veterinary norms and rules in the field of organization of metrological support for the production of agricultural raw materials and food products
	Owns	skills in the use of regulatory and technical documentation, regulations, veterinary norms and rules in the field of metrological support for the production of agricultural raw materials and food

		products
SPC-10 ability to develop a quality management system for biotechnological products in accordance with the requirements of Russian and international quality standards	Knows	normative and technical documentation, regulations, veterinary norms and rules
	Is able	apply in practice theoretical knowledge in the field of compliance with the requirements of the quality management system for biotechnological products at the enterprise
	Owns	development and compliance skills
SPC-11 the ability to ensure technological discipline, sanitary and hygienic mode of operation of the enterprise, maintenance of technological equipment in proper technical condition	Knows	ways to search for scientific and technical information of domestic and foreign experience on the subject of research of the quality management system of biotechnological products
	Is able	search for scientific and technical information of domestic and foreign experience on the research topic
	Owns	ways to search for scientific and technical information of domestic and foreign experience on the subject of research
SPC-12 the ability to plan and carry out activities to ensure safety at work, to monitor and protect the environment	Knows	fundamentals of industrial safety, normative and technical documentation, regulations, veterinary norms and rules
	Is able	apply knowledge in practice in the field of industrial safety, monitoring and environmental protection
	Owns	ways to ensure safety at work, monitor and protect the environment

7. STRUCTURE AND CONTENT OF INTERNSHIP

The total labor intensity of the production practice is 3 credits, 108 hours.

№ п/п	Sections (stages) of practice	Types of work in practice, including independent work of students and laboriousness (in hours)	Current Control Forms

1	Preparatory stage: - Obtaining documents for practice (direction, diary, assignment); - Arrival at the place of practice and an introductory briefing; -Organization of the workplace and acquaintance with the team.	Obtaining documents for practice (2 h)	Introductory lecture (2 h)	Safety briefing (2 h)		Making entries in the diary. Oral conversations.
2	The Main stage: - study of the organizational structure of the practice base; - study of regulatory and technical documentation; - fulfillment of individual production tasks; - study of the principle of operation of technological equipment.	Accomplishment of practice tasks in accordance with the program (30h)	Safety briefing at the enterprise (2 hours)	Study of materials and documents at the place of practical training (26 h)	Processing and analysis of the obtained practice materials (20 h)	Making entries in the diary. Oral conversations.
3	The final stage: - Processing and systematization of the received material; - Preparation of a report on the passage of organizational and managerial practice; - Protection of the report on organizational and management practices.	Report writing (11h)	Presentation preparation (9 h)	Report Protection (2 hours)		Score with grade

In the process of practice, undergraduates participate in all types of organizational and managerial work of the department, departments of the university or enterprise. During the practice, undergraduates perform organizational and managerial activities.

The specific content of organizational and managerial activities is reflected in the individual calendar plan of the organizational and managerial practice of the undergraduate.

8. EDUCATIONAL AND METHODOLOGICAL SUPPORT FOR INDEPENDENT WORK OF STUDENTS IN INDUSTRIAL PRACTICE

The practice program includes preparatory, main, final stages.

1 Preparatory stage.

1.1 Preparation of an individual plan for the implementation of the practice program, in accordance with the assignment of the head of the practice.

1.2 Acquaintance with the information and methodological base of practice.

1.3 Definition of the discipline and its module, on which training sessions will be held, didactic materials have been prepared.

2 Main stage.

2.1 Study of the state and prospects for the development of production, economic and financial activities; the main technical and economic indicators of the organization's work in recent years.

2.2 Study of the personnel of the enterprise or structural unit of the enterprise. The study of schemes reflecting the production and organizational structure of the enterprise.

2.3 Study of the composition and content of the actually performed functions of a certain structural unit of the enterprise, identify mechanisms for interaction with other units, form proposals for improving the production activities of the enterprise/structural unit.

2.4 Studying the organization of work on the prevention of industrial injuries, occupational diseases, the prevention of environmental violations at the enterprise.

3 Final stage

3.1 Preparation of a practice report.

3.2 Protection of the report.

The result of the internship is the preparation of a report that presents a qualified analysis of a particular problem, a program is developed and tools for solving the problem are proposed, conclusions are made about the possibility of practical use (implementation) of the results obtained. All this can form the basis of the master's report on practice. The results of the analysis are documented in writing.

The report on the results of passing the organizational and managerial practice includes a description of the work done.

The report on organizational and managerial practice includes:

1. Characteristics compiled by the head of practice from the enterprise.

2. Report on the completion of organizational and managerial practice, drawn up in accordance with the established requirements. The practice report should reflect all types of work performed in accordance with the task and the individual plan of organizational and managerial practice.

The content of the report includes:

1 Individual plan of organizational and managerial practice together with an individual task for practice.

2 Diary of organizational and managerial practice.

3 Report made according to the structure:

− Introduction, which indicates the purpose, place, start date and duration of the practice, a list of work and assignments performed during the practice;

− The main part containing the analysis of organizational and managerial literature on the topic, a description of the practical tasks solved by the undergraduate in the process of internship, a description of the organization of individual work, the results of the analysis of the conduct of classes by teachers and undergraduates;

− Conclusion, including: a description of the skills and abilities acquired in practice, proposals for improving organizational and managerial work, individual conclusions about the practical significance of the organizational and managerial research.

- List of used sources.
- Applications.

For full-time undergraduates, there are various options for passing organizational and managerial practice.

9. FORMS OF CERTIFICATION (BY THE RESULTS OF PRACTICE)

Before passing the organizational and managerial practice, the undergraduate receives an individual task from the head of the practice from the university, the content and scope of which are negotiated with the head of the practice.

Based on the results of the internship, the student draws up a report on the internship, participates in the final conference with a presentation of the results of the internship, after which he receives a credit with an assessment.

The practice report should contain the following elements:

− title page (Appendix 3);

- task and schedule of practice (Appendix 1);

− introduction;

− report on production activities in the process of internship;

− sources of information;

The report is drawn up in accordance with the "Requirements for the design of written work performed by students and listeners of FEFU".

The scope of the report depends on the topic of the individual assignment.

Sample report structure

1. General information about the enterprise and its brief description (history, geographical location, list of main workshops, buildings and structures indicating their purpose; information about the main services of the enterprise).

2. The structure of the enterprise and its individual divisions, its raw material base.

3. State and prospects for the development of production, economic and financial activities; the main technical and economic indicators of the organization's work in recent years.

4. Personnel of the enterprise or structural subdivision of the enterprise. Schemes reflecting the production and organizational structure of the enterprise.

5. The composition and content of the actually performed functions of a certain structural unit of the enterprise, to identify mechanisms for interaction with other units, to form proposals for improving the production activities of the enterprise/structural unit.

6. Organization of work on the prevention of industrial injuries, occupational diseases, the prevention of environmental violations at the enterprise.

7. Conclusion.

By agreement with the head of practice from the university and depending on the place of passing this type of practice, the structure of the report or its individual parts may change.

After completing the practice and completing the report in accordance with the requirements, the student submits his report for defense to the head of the university. Based on the results of the defense, a test is given with an assessment (excellent, good, satisfactory, unsatisfactory):

"Excellent" - the necessary practical work skills and professional competencies, provided for by the program of organizational and managerial

practice, are fully formed, the tasks are completed, the quality of their performance is estimated by a number of points close to the maximum.

"Good" - the necessary practical skills and professional competencies provided for by the program of organizational and managerial practice are fully formed, the tasks are completed, the quality of none of them is rated with a minimum number of points, some types of tasks are completed with errors or insufficiently carefully.

"Satisfactory" - the necessary practical skills and professional competencies are basically formed, the gaps are not significant, some of the completed tasks contain errors.

"Unsatisfactory" - the necessary practical skills and professional competencies provided for by the program of organizational and managerial practice are not formed, all completed training tasks contain gross errors, additional independent work on the report materials will not lead to any significant improvement in the quality of tasks.

10. EDUCATIONAL-METHODOLOGICAL AND INFORMATION SUPPORT OF INDUSTRIAL PRACTICE

The main:

1. Antipova, L. V. Fundamentals of biotechnology for processing agricultural products: a textbook for universities / L. V. Antipova, O. P. Dvoryaninova; under the scientific editorship of L. V. Antipova. - 2nd ed., revised. and additional - Moscow: Yurayt Publishing House, 2021. - 204 p. - (Higher education). - ISBN 978-5-534-12435-4. — Text: electronic // Educational platform Urayt [website]. — URL: https://urait.ru/bcode/473735 (date of access: 02/01/2021).

2. Biotechnology: textbook and workshop for universities / edited by N. V. Zagoskina, L. V. Nazarenko. - 3rd ed., Rev. and additional - Moscow: Yurayt

Publishing House, 2020. - 381 p. - (Higher education). — ISBN 978-5-534-13546-6. — Text: electronic // Educational platform Urayt [website]. — URL: https://urait.ru/bcode/467724 (date of access: 02/01/2021).

3. Plant biotechnology: textbook and workshop for universities / L. V. Nazarenko, Yu. I. Dolgikh, N. V. Zagoskina, G. N. Raldugina. — 2nd ed., corrected. and additional - Moscow: Yurayt Publishing House, 2021. - 161 p. - (Higher education). — ISBN 978-5-534-05619-8. — Text: electronic // Educational platform Urayt [website]. — URL: https://urait.ru/bcode/471466 (date of access: 02/01/2021).

4. Equipment for biotechnological productions: a textbook for universities / I. A. Evdokimov [and others]; edited by I. A. Evdokimov. - Moscow: Yurayt Publishing House, 2020. - 206 p. - (Higher education). — ISBN 978-5-534-12433-0. — Text: electronic // Educational platform Urayt [website]. — URL: https://urait.ru/bcode/447483 (date of access: 02/01/2021).

5. Organization of biotechnological production: textbook for universities / A. A. Krasnoshtanova [and others]; edited by A. A. Krasnoshtanova. - Moscow: Yurayt Publishing House, 2021. - 170 p. - (Higher education). - ISBN 978-5-534-13029-4. — Text: electronic // Educational platform Urayt [website]. — URL: https://urait.ru/bcode/448767 (date of access: 02/01/2021).

6. Chechina, O.N. General biotechnology: textbook for universities / O.N. Chechina. - 3rd ed., revised. and additional - Moscow: Yurayt Publishing House, 2021. - 266 p. - (Higher education). — ISBN 978-5-534-13660-9. — Text: electronic // Educational platform Urayt [website]. — URL: https://urait.ru/bcode/474715 (date of access: 02/01/2021).

Additional:

1 Auerman, L.Ya. Technology of baking production: Textbook / L.Ya. Auerman. - 9th ed., Revised. and add. / Under the total. ed. L.I. Puchkova. - St. Petersburg: Profession, 2009 .-- 416 p. http://lib.dvfu.ru:8080/lib/item?id=chamo:316025&theme=FEFU

2 Borisenko, L.A. Biotechnological basis for the intensification of production of salted meat products / A.A. Borisenko, A.A. Bratsikhin. - M .: DeLi print, 2010 .-- 163 p. http://lib.dvfu.ru:8080/lib/item?id=chamo:342770&theme=FEFU

3 Ivashov, V.I. Technological equipment for meat industry enterprises: a textbook for high schools / V.I. Ivashov. - St. Petersburg .: GIORD, 2010. - 736 pp. Http://lib.dvfu.ru:8080/lib/item?id=chamo{59114&theme=FEFU

4 Rogov, I.A. General technology of meat and meat products / I.A. Rogov, A.G. Zabashta, G.P. Kazyulin. - M.: KolosS, 2010 .-- 367 p. http://lib.dvfu.ru:8080/lib/item?id=chamo{40686&theme=FEFU

The list of resources of the information and telecommunication network "Internet".

1. http://elibrary.ru Scientific Electronic Library eLIBRARY.RU
2. The electronic library system "Doe" http://e.lanbook.com/
3. The electronic library system "IPRBOOK" http://www.iprbookshop.ru
4. Scopushttp database: //www.scopus.com/home.url
5. Web of Science database http://apps.webofknowledge.com/
6. Database of full-texting academic journals in China http://oversea.cnki.net/
7. The electronic library of dissertations of the Russian State Library http://diss.rsl.ru/
8. EBSCO Electronic Databases http://search.ebscohost.com/

11. LOGISTICS AND TECHNICAL SUPPORT OF INDUSTRIAL PRACTICE

Bases of practice can be educational institutions; research institutes, laboratories; workshops and laboratories of industrial enterprises of the food and processing profile (for example, meat processing enterprises), equipped with modern technological equipment and testing instruments that allow you to control the quality of raw materials and products; laboratories for the analysis and

evaluation of the quality of food products, as well as the scientific laboratory of ecobiotechnology of the School of Biomedicine of the Far Eastern Federal University and the Department of Biotechnology and Functional Nutrition, where there are conditions for organizational and managerial practice.

Approximate bases of practices: Federal State Budgetary Scientific Institution “FNTs of Agrobiotechnologies of the Far East named after V.I. A.K. Seagulls, LLC Ratimir, PPO Nikolsk, SGB Management (Artyomovskiy Dairy Plant, Green-Agro), Brothers Group LLC, VIK LLC, AgroMercy Trade LLC, Vladkhleb OJSC, and etc.

The material and technical support for the implementation of organizational and managerial practices on the basis of the Department of Food Science and Technology includes classrooms for lectures and practical classes, equipped with multimedia support and complying with sanitary and contrary rules and regulations.

№ п/п	**Name of special rooms and premises for independent work**	**Equipped with special rooms and rooms for independent work**
3	690022, Primorsky Territory, Vladivostok, Russky Island, Saperny Peninsula, village of Ajax 10, auditorium M 311. M311- The classroom for lecture-type classes, seminar-type classes, group and individual consultations, ongoing monitoring and interim certification.	Training furniture for 25 workplaces, teacher's place (table, chair), Analytical and technological equipment (M311): Milk centrifuge with heating ЦЛМ 1-12; Liquid thermostat LOIP Lt-208a, volume 8l, 120x150 / 200mm; Analyzer of milk quality Lactan 1-4 mod. 230; PH-millivolmeter with tripod pH-150MI; VSP 1.5-2-3T scales; Refrigerator "Ocean-RFD-325B"; Drying cabinet, stainless steel chamber. steel, 58l; electric stove 111CH 101-226589; PE-6110 magnetic stirrer with heating; VNZh-0,3-KhS3 viscometer (d-1.41) glass capillary; Tripod PE-2710 lab. for burettes. Multimedia equipment: Monoblock Lenovo C360G-i34164G500UDK; Screen with electric 236 * 147 cm Trim Screen Line; DLP projector, 3000 ANSI Lm, WXGA 1280x800, 2000: 1 EW330U Mitsubishi; Subsystem of specialized hardware mounts CORSA-2007 Tuarex; Video Switching Subsystem: DVI DXP 44 DVI Pro Extron

		matrix switcher; Extender DVI over twisted pair DVI 201 Tx / Rx; Subsystem of audio switching and sound reinforcement; ceiling mount speaker SI 3CT LP Extron; Sennheiser EW 122 G3 UHF Microphone Lavalier Radio System with a wireless microphone and receiver; DMP 44 LC Extron digital audio processor; Extron IPL T S4 Network Management Controller; Wireless LANs for students are provided with a system based on 802.11a / b / g / n 2x2 MIMO (2SS) access points.
4	690022, Primorsky Territory, Vladivostok, Russky Island, Saperny Peninsula, village of Ajax 10, auditorium M621. M621- The classroom for the implementation of design work, lecture-type classes, seminar-type classes, group and individual consultations, ongoing monitoring and interim certification.	Training furniture for 17 workplaces, Teacher's place (table, chair), Computer class: Monoblock Lenovo C360G-i34164G500UDK 19.5 "Intel Core i3-4160T 4GB DDR3-1600 SODIMM (1x4GB) 500GB Windows Seven Enterprise - 17 pcs; Wired LAN - Cisco 800 series; Wireless LAN for students is provided with a system based on 802.11a / b / g / n 2x2 MIMO (2SS) access points.
6	690922, Primorsky Territory, Vladivostok, Russky Island, Saperny Peninsula, village of Ajax, 10, building A, aud. A1017. Reading rooms of the FEFU Scientific Library with open access to the fund (building A - level 10) Audience for independent work of graduate students.	The room is equipped with specialized training furniture (seats - 15) Equipment: Monoblock Lenovo C360G-i34164G500UDK - 15 pcs. Integrated Polymedia FlipBox Touchscreen Display - 1 pc. Copier-printer-color scanner in e-mail with 4 trays Xerox WorkCentre 5330 (WC5330C - 1 pc.

In order to ensure special conditions for the training of disabled and disabled people in FEFU, all buildings are equipped with ramps, elevators, lifts, specialized places, equipped with toilets, information and navigation support signs.

For people with disabilities and people with disabilities, the choice of practice places is consistent with the requirement of their accessibility for these students and the practice is conducted taking into account the peculiarities of their psychophysical development, individual capabilities and health status.

Compiled by: Professor of the Department of Food Sciences and Technologies, Doctor of Biological Sciences, Professor Kalenik T.K., Associate Professor of the Department of Food Sciences and Technologies Novitckaia E.G.

The practice program was discussed at a meeting of the Department of Food Science and Technology, protocol №. 1 «28» September 2021.

ANNEX 1

MINISTRY OF EDUCATION AND SCIENCE OF THE RUSSIAN FEDERATION
Federal state autonomous educational institution
of higher education
«Far Eastern Federal University»
(FEFU)

INSTITUTE OF LIFE SCIENCES AND BIOMEDICINE (SCHOOL)

«AGREED»
Head of education program

_____FULL NAME.
"____" _____20__

INDIVIDUAL JOB

By _____

(Type of practice)

Student ___ group's _____

(Name of student)

Educational program _19.04.01 "Biotechnology"

Base (place, organization) of practice
_____

Duration of practice from _____20___Y. To _____ 20___ Y

Generalized wording of the assignment	

Task Schedule

The name of the tasks (activities) that make up the task	Date of completion of the task (event)
1.	
2.	
3.	

Head of Practice _____ _____

signature full name, position

APPENDIX 2

Practice Diary Example

Far Eastern Federal University

INSTITUTE OF LIFE SCIENCES AND BIOMEDICINE (SCHOOL)

Head of Practice from FEFU

_____

Head of practice from the host organization

_____

A DIARY

By _____ practice

Student _____ course _____ group

By program_____

Place of Practice _____

Duration of practice _____ weeks

_____

5. Student calendar

№ п\п	Name of work	Calendar dates		Surname of head of practice
		start	ending	

6. Student work diary

date of	Summary of work intern	Signature a manager

3. Report protection results
The report is protected by _____ _____ 20___
With a rating of _____

Director of DPNiT _____ Full name

ANNEX 3

Practice report title page form

MINISTRY OF EDUCATION AND SCIENCE OF THE RUSSIAN FEDERATION
Federal state autonomous educational institution
of higher education
«Far Eastern Federal University»
(FEFU)

INSTITUTE OF LIFE SCIENCES AND BIOMEDICINE (SCHOOL)

The report is protected with a rating of _____
"_____" _____ 20__ Y

Director of DPNiT
_____ Surname I.O.

.

REPORT

on the passage of industrial and Work experience and internship.
Operational practice in
_____
(Full name of the enterprise)

Student gr. _____ groups _____ (_____)
Signature full name
Supervisor
from the university _____ (_____)
Signature full name

APPENDIX 4

Form of referral to industrial practice

MINISTRY OF EDUCATION AND SCIENCE OF THE RUSSIAN FEDERATION

Federal state autonomous educational institution

of higher education

«Far Eastern Federal University»

(FEFU)

INSTITUTE OF LIFE SCIENCES AND BIOMEDICINE (SCHOOL)

N A P R A V L E N I E

To practice _____

Student of the master course

_____Last name First name _____group

(Full Name)

Seconded to_____

Name of base organization

Address_____

Order on referral to practical training No. _____

For passing _____

In the direction of preparation 19.04.01 Biotechnology for a period from _____ 201 to _____ 201 (continuous / discrete)

Head of Practice

Professional skills and experience in

Professional activity

M.P. _____ _____ _____

(Position, academic title) (Signature) (Full name)

Marks on the implementation and terms of practice

Company name	Arrival and Departure Mark	Signature, decryption of signature, stamp
Name of enterprise, organization in accordance with the contract	*Arrived* __.__.*20*__ г.	
	Arrived __.__.*20*__ г.	

Head of Practice _____ _____

signature full name, position

MINISTRY OF EDUCATION AND SCIENCE OF THE RUSSIAN FEDERATION
Federal state autonomous educational institution
of higher education
«Far Eastern Federal University»
(FEFU)
INSTITUTE OF LIFE SCIENCES AND BIOMEDICINE (SCHOOL)

AGREED

Head of OP

Kalenik T.K.
(signature) (full name)

«28» September 2021 г.

APPROVE

Head of VSP

Kalenik T.K.
(signature) (full name)

«28» September 2021 г.

WORKING PROGRAM OF PRODUCTION PRACTICE
Work experience and internship. Pregraduation

19.04.01 Biotechnology
Name of the educational program: Agri-Food Biotechnology

Master's program

Vladivostok
2021

1. REGULATORY DOCUMENTATION REGULATING THE PROCESS OF ORGANIZATION AND PRACTICE

The program was developed in accordance with the requirements of the Federal State Educational Standard for Higher Education (FS FEFU) in the direction of 04/19/01 "Biotechnology" approved by the decision of the FEFU Academic Council, Protocol No. 2015 No. 12-13-12822.

2. OBJECTIVES OF UNDERGRADUATE INTERNSHIP

The goals of undergraduate practice are to consolidate the theoretical knowledge gained in the study of compulsory disciplines; acquisition of professional skills in future professional activities; formation of ideas about the work of food enterprises.

3. OBJECTIVES OF UNDERGRADUATE PRACTICE

The tasks of undergraduate practice are:

- collection of material using information and communication technologies and taking into account the basic requirements of information security to solve standard tasks of professional activity;

− familiarity with the main technological equipment, technological processes and safety requirements;

− familiarization with normative and technical documentation, regulations, veterinary norms and rules in the production process.

4. THE PLACE OF UNDERGRADUATE PRACTICE IN THE STRUCTURE OF THE EP

Block B2 «Practices, including research work (R&D)» of the educational standard, independently established by FEFU, in the direction of 19.04.01 «Agricultural biotechnology», approved by the Ministry of Education and Science of the Russian Federation of 07.07.2015 No. 12-13- 1282, is mandatory, variable and is a type of

training session that is directly focused on the professional and practical training of students.

Pregraduation practice is the second stage of practical training at the level of higher education - magistracy and is aimed at obtaining by students professional skills and abilities, including professional skills and professional experience.

Pregraduation practice is carried out in third-party organizations that have the necessary human and scientific and technical potential (exit).

Industrial Pregraduation practice is based on the theoretical development of such disciplines as: «Methodology of scientific research in biotechnology», «Administration and management of agriculture and agro-industrial complex», «Agricultural biotechnology and biotechnology of raw materials of animal and vegetable origin», «Development of food technologies for dietary therapeutic and dietary preventive nutrition».

Passage by students of industrial Pregraduation practice is an integral part of the educational process and is necessary for the acquisition of professional skills in future professional activities and the formation of ideas about the work of food enterprises.

5. TYPES, METHODS, PLACE AND TIME OF CONDUCT OF PREGRADUATION INTERNSHIP

Type of practice: undergraduate.

Method of conducting - stationary / traveling (at the choice of the student).

Conducting practice: concentrated (according to the curriculum at the end of the 2nd course).

Practice time: 4th semester.

The place of practice is the structural divisions of FEFU (Department of Food Science and Technology), as well as organizations whose activities correspond to

professional competencies mastered in the framework of the educational program 19.04.01 Biotechnology (at the student's choice).

Internship in third-party organizations is based on contracts, according to which students are provided with internship places, as well as organizational and informational and methodological assistance in the process of internship.

Students can independently propose places for internships. The student begins the internship only after the official confirmation of the consent of the organization (enterprise) with the conclusion of the contract according to the general model established by FSAEI HE «Far Eastern Federal University».

6. STUDENT COMPETENCES FORMED AS A RESULT OF PREGRADUATION INTERNSHIP

Code and wording of competency	**Competency Stages**	
GC-1 the ability to creatively adapt the achievements of foreign science, technology and education to domestic practice; high degree of professional mobility	Knows	achievements of foreign science, technology and education
	Is able	apply knowledge in the field of achievements of foreign science, technology and education to domestic practice
	Owns	skills to adapt the achievements of foreign science, technology and education to domestic practice; a high degree of professional mobility
GC-4 the ability to quickly master new subject areas, identify contradictions, problems and develop alternative solutions to them	Knows	подходы к решению проблем в предметных областях
	Is able	quickly master new subject areas, identify contradictions, problems and develop alternative solutions to them
	Owns	skills to master new subject areas, identify contradictions, problems and develop alternative solutions to them
GC-5 the ability to generate ideas in scientific and professional activities	Knows	research methods and innovations in scientific and professional activities
	Is able	generate ideas in scientific and professional activities
	Owns	the ability to generate ideas in scientific and professional activities

GC- 9 readiness to act in non-standard situations, bear social and ethical responsibility for the decisions made in the professional sphere, to improve the general cultural level	Knows	social and aesthetic rules, safety rules, job responsibilities
	Is able	act in non-standard situations, bear social and ethical responsibility for the decisions made
	Owns	knowledge of the rules of the social and aesthetic sphere, safety rules, job responsibilities
GC-11 the ability for professional growth, for independent learning of new research methods, for changing the scientific and scientific-production profile of one's professional activity	Knows	ways of self-learning new research methods
	Is able	carry out measurements, observations and compilation of descriptions of ongoing studies
	Owns	skills in writing reviews, reports and scientific publications
GC-12 the ability to put into practice skills and abilities in the organization of research and design work and in team management	Knows	principles of organization of research and design work in team management
	Is able	organize research and design work in team management
	Owns	team management skills and organization of research and design work
GC-13 the ability to put into practice skills and abilities in the organization of research and design work and in team management	Knows	legal and ethical standards in assessing the consequences of their professional activities, in the development and implementation of socially significant projects
	Is able	willingness to use legal and ethical standards in assessing the consequences of their professional activities
	Owns	skills to use legal and ethical standards in assessing the consequences of their professional activities, in the development and implementation of socially significant projects
GPC-1 ability to professionally operate modern biotechnological equipment and scientific instruments	Knows	rules and methods for developing technological projects
	Is able	develop technological projects as part of a team of authors
	Owns	knowledge in the development of technological projects
GPC-5 the ability to use modern information technologies to collect, process and disseminate scientific information in the field of biotechnology and related	Knows	modern information technologies for the collection, processing and dissemination of scientific information
	Is able	Use modern information technologies to collect, process and disseminate scientific

industries, the ability to use databases, software products and resources of the information and telecommunication network "Internet" (hereinafter referred to as the "Internet") to solve the problems of professional activity		information
	Owns	modern information technologies for the collection, processing and dissemination of scientific information
GPC-6 readiness to protect intellectual property and commercialize intellectual property rights	Knows	fundamentals of protection of intellectual property objects and commercialization of rights to intellectual property objects
	Is able	protect objects of intellectual property and commercialization of rights to objects of intellectual property
	Owns	fundamentals of protection of intellectual property objects and commercialization of rights to intellectual property objects
SPC-1 willingness to plan, organize and conduct research work in the field of biotechnology, the ability to correctly process the results of experiments and draw reasonable conclusions and conclusions	Knows	the main directions of research work in the field of agro-industrial complex and biotechnology
	Is able	receive results and draw reasonable conclusions from research work in the field of agro-industrial complex and biotechnology
	Owns	basic knowledge of research methods in the field of agro-industrial complex and biotechnology
SPC-2 the ability to analyze scientific and technical information in the field of biotechnology and related disciplines for the purpose of scientific, patent and marketing support for ongoing fundamental research and technological developments	Knows	methods for organizing research and development work, assessing the quality of performance results
	Is able	use in practice skills and abilities in the organization of research and development work, evaluate the quality of performance results
	Owns	the ability to use in practice skills and abilities in the organization of research and development work, assessing the quality of performance results
SPC -8 ability to conduct a feasibility study of production and prepare technical and economic documentation	Knows	types of technological process in food production
	Is able	apply knowledge in the design of a technological process in food production
	Owns	the ability to conduct a technical and economic analysis of production and draw up technical and economic documentation
SPC-9 willingness to use the basic principles of organization of metrological support of production	Knows	basic principles of organizing metrological support for the production of agricultural raw materials and food products
	Is able	use the basic principles of organizing

		metrological support for the production of agricultural raw materials and food products
	Owns	skills in using the basic principles of organizing metrological support for the production of agricultural raw materials and food products
SPC-10 ability to develop a quality management system for biotechnological products in accordance with the requirements of Russian and international quality standards	Knows	principles of developing a quality management system for biotechnological products in accordance with the requirements of Russian and international quality standards
	Is able	develop a quality management system for biotechnological products in accordance with the requirements of Russian and international quality standards
	Owns	principles of developing a quality management system for biotechnological products in accordance with the requirements of Russian and international quality standards
SPC-11 the ability to ensure technological discipline, the sanitary and hygienic mode of operation of the enterprise, the maintenance of technological equipment in proper technical condition	Knows	sanitary and hygienic mode of operation of the enterprise, maintenance of technological equipment in proper technical condition
	Is able	ensure technological discipline, sanitary and hygienic mode of operation of the enterprise, maintenance of technological equipment in proper technical condition
	Owns	the skill of ensuring the sanitary and hygienic mode of operation of the enterprise, the maintenance of technological equipment in proper technical condition
SPC-12 the ability to plan and carry out activities to ensure safety at work, to monitor and protect the environment	Knows	fundamentals of industrial safety, normative and technical documentation, regulations, veterinary norms and rules
	Is able	apply knowledge in practice in the field of industrial safety, monitoring and environmental protection
	Owns	ways to ensure safety at work, monitor and protect the environment
SPC-13 readiness for organizing, planning and managing existing biotechnological processes and production	Knows	principles of adaptation of modern versions of planning and quality management systems to specific production conditions based on international standards
	Is able	adapt modern versions of planning and quality management systems to specific

		production conditions based on international standards
	Owns	willingness to adapt modern versions of planning and quality management systems to specific production conditions based on international standards
SPC-14 the ability to use standard and develop new methods for engineering calculations of technological parameters and equipment for biotechnological production	Knows	typical methods of engineering calculations of technological parameters and equipment of biotechnological productions
	Is able	use standard and develop new methods for engineering calculations of technological parameters and equipment for biotechnological production
	Owns	knowledge in the field of engineering calculations of technological parameters and equipment of biotechnological productions
SPC-15 willingness to ensure the stability of production indicators and product quality	Knows	norms of production quality indicators
	Is able	ensure the stability of production indicators and product quality
	Owns	the ability to ensure the stability of production indicators and product quality
SPC-16 the ability to carry out the effective operation of control, automation and automated production control, chemical-technical, biochemical and microbiological control	Knows	operation of control, automation and automated production control, chemical-technical, biochemical and microbiological control
	Is able	to carry out the effective operation of means of control, automation and automated production control, chemical-technical, biochemical and microbiological control
	Owns	knowledge of the operation of control equipment, automation and automated production control, chemical-technical, biochemical and microbiological control
SPC-17 readiness for pilot testing of technology and scaling of processes	Knows	rules for conducting pilot testing of technology and scaling processes
	Is able	Conduct pilot testing of technology and process scaling
	Owns	Knowledge in conducting pilot testing of technology and scaling processes
SPC-18 ability to develop and scientifically substantiate schemes for optimal integrated certification of biotechnological products	Knows	schemes for optimal comprehensive certification of biotechnological products
	Is able	develop and justify schemes for optimal integrated certification of biotechnological products
	Owns	ability to develop and scientifically

		substantiate schemes for optimal integrated certification of biotechnological products
SPC-19 the ability to analyze the indicators of the technological process for compliance with the original scientific developments	Knows	indicators of the technological process for compliance with the original scientific developments
	Is able	analyze the indicators of the technological process for compliance with the original scientific developments
	Owns	the ability to analyze the indicators of the technological process for compliance with the original scientific developments
SPC-20 the ability to ensure the biological safety of raw materials, semi-finished products, finished products	Knows	production process of products of plant and animal origin
	Is able	control the quality of raw materials and products
	Owns	skills to ensure the biological safety of raw materials, semi-finished products, finished products
SPC-21 the ability to ensure the metrological state of production and the effective operation of control, automation and automated production control	Knows	basics of the technological process, quality control of products and management of automated production
	Is able	carry out quality control of products and management of automated production
	Owns	skills in quality control of products and management of automated production
SPC-22 the ability to coordinate work on the implementation of scientific research results in production	Knows	ways to develop a new range of products and technologies with a given composition and properties
	Is able	develop a new range of products and technologies with a given composition and properties
	Owns	skills in developing a new range of products and technologies with a given composition and properties

7. STRUCTURE AND CONTENT OF PREGRADUATION PRACTICE

The total labor intensity of the production practice is 6 credits, 216 hours.

№ п/п	Sections (stages) of practice	Types of work in practice, including independent work of students and laboriousness (in hours)			Current Control Forms
1	Preparatory stage: - Obtaining documents for practice (direction, diary, assignment); - Arrival at the place of practice and an	Obtaining documents for practic	Introductory lecture (2 hours)	Safety briefing (2 h)	Making entries in the diary. Oral

	introductory briefing; -Organization of the workplace and acquaintance with the team.	e (2 hours)				conversations.
2	The main stage: - Study of the organizational structure of the base of practice; - the study of regulatory and technical documentation; - Implementation of individual production tasks; - The study of practical activities.	Accomplishment of practice tasks in accordance with the program (62 h)	Safety briefing at the enterprise (33 hours)	Study of materials and documents at the place of practical training (52hours)	Processing and analysis of the obtained practice materials (45hours)	Making entries in the diary. Oral conversations.
3	The final stage: - Processing and systematization of the received material; - Preparation of a report on the passage of organizational and managerial practice; - Protection of the report on organizational and management practices.	Report writing (10h)	Presentation preparation (4 h)	Report Protection (2 hours)		Score with grade

8. EDUCATIONAL AND METHODOLOGICAL SUPPORT FOR INDEPENDENT WORK OF STUDENTS IN PREGRADUATION PRACTICE

Pregraduation practice is aimed at familiarizing students with the material and technical support of the enterprise / workshop / laboratory, software and modern methods for analyzing raw materials and materials.

During pregraduation practice, regardless of the place of its passage, students should pay special attention to issues related to life safety, labor protection and industrial sanitation. To do this, it is necessary to consider the principles of state and public control over compliance with labor laws, the organization of the life safety service and its tasks.

An individual task (Appendix 1) is issued to the student at the university by the head of the practice before the start of the practice. It should be associated with the technology of obtaining one of the types of meat products.

Control questions:

1. Give the characteristics, specialization and production profile of the food enterprise.
2. Describe the material and technical base, resource area and capacity of the enterprise.
3. What is the operating mode of the enterprise (how many shifts per day, month)?
4. Give the structure of the organization of the enterprise, the management scheme.
5. Describe the range of products.
6. Provide a description of the production lines, describe the production schemes for the main types of products.
7. What is the role and importance of the laboratory in the enterprise?
8. What methods of analysis of raw materials, semi-finished products and finished products are carried out at the enterprise?
9. What forms of journals are presented in the laboratory and at the production sites of the enterprise?
10. What measures are taken for labor safety, for sanitary and hygienic, fire and preventive measures at the enterprise?
11. What measures are taken at the enterprise to improve working conditions?
12. How is the power supply, gas supply and water supply of the enterprise carried out?
13. How is the delivery of finished products to retail chains?
14. Measures to reduce defects in production and the return of finished products with an expired shelf life from retail chains.
15. What is the area for the sale of the company's products?

9. FORMS OF CERTIFICATION (BY THE RESULTS OF PRACTICE)

Before passing the undergraduate practice, the student receives an individual task from the head of the practice from the university, the content and volume of which are negotiated with the head of the practice.

Based on the results of the internship, the student draws up a report on the internship, participates in the final conference with a presentation of the results of the internship, after which he receives a credit with an assessment.

The practice report should contain the following elements:

− title page (Appendix 3);

- task and schedule of practice (Appendix 1);

− introduction;

− report on production activities in the process of internship;

− sources of information;

The report is drawn up in accordance with the "Requirements for the design of written work performed by students and listeners of FEFU".

The scope of the report depends on the topic of the individual assignment.

Sample report structure

1. General information about the enterprise and its brief description (history, geographical location, list of main workshops, buildings and structures indicating their purpose; information about the main services of the enterprise).

2. The structure of the enterprise and its individual divisions, its raw material base.

3. The range of products and their characteristics. Regulatory documents for manufactured products. Design and operating capacity of the enterprise.

4. Individual task. Describe the technology of production of one of the types of manufactured products (requirements for raw materials and finished products, recipe, methods of technical and chemical control, description of the main technological stages of production and methods of waste disposal).

5. Describe the types of packaging used, storage conditions, types of control of finished products.

6. Conclusion.

By agreement with the head of practice from the university and depending on the place of passing this type of practice, the structure of the report or its individual parts may change.

After completing the practice and completing the report in accordance with the requirements, the student submits his report for defense to the head of the university. Based on the results of the defense, a test is given with an assessment (excellent, good, satisfactory, unsatisfactory):

«Excellent» - the necessary practical work skills and professional competencies provided for by the internship program are fully formed, the tasks are completed, the quality of their performance is estimated by a number of points close to the maximum.

«Good» - the necessary practical skills and professional competencies provided for by the program of practical training are fully formed, the tasks are completed, the quality of none of them is rated with a minimum number of points, some types of tasks are completed with errors or insufficiently carefully.

«Satisfactor» - the necessary practical skills and professional competencies are basically formed, the gaps are not significant, some of the completed tasks contain errors.

«Unsatisfactory» - the necessary practical work skills and professional competencies provided for by the internship program are not formed, all completed training assignments contain gross errors, additional independent work on the report materials will not lead to any significant improvement in the quality of assignments.

10. EDUCATIONAL-METHODOLOGICAL AND INFORMATION SUPPORT OF INDUSTRIAL PRACTICE

Main literature:

1. Antipova, L. V. Fundamentals of biotechnology for processing agricultural products: a textbook for universities / L. V. Antipova, O. P. Dvoryaninova; under the scientific editorship of L. V. Antipova. - 2nd ed., revised.

and additional - Moscow: Yurayt Publishing House, 2021. - 204 p. - (Higher education). - ISBN 978-5-534-12435-4. — Text: electronic // Educational platform Urayt [website]. — URL: https://urait.ru/bcode/473735 (date of access: 02/01/2021)

2. 2 Biotechnology: textbook and workshop for universities / edited by N. V. Zagoskina, L. V. Nazarenko. - 3rd ed., Rev. and additional - Moscow: Yurayt Publishing House, 2020. - 381 p. - (Higher education). — ISBN 978-5-534-13546-6. — Text: electronic // Educational platform Urayt [website]. — URL: https://urait.ru/bcode/467724 (date of access: 02/01/2021).

3 Plant biotechnology: textbook and workshop for universities / L. V. Nazarenko, Yu. I. Dolgikh, N. V. Zagoskina, G. N. Raldugina. — 2nd ed., corrected. and additional - Moscow: Yurayt Publishing House, 2021. - 161 p. - (Higher education). — ISBN 978-5-534-05619-8. — Text: electronic // Educational platform Urayt [website]. — URL: https://urait.ru/bcode/471466 (date of access: 02/01/2021).

4 Equipment for biotechnological productions: a textbook for universities / I. A. Evdokimov [and others]; edited by I. A. Evdokimov. - Moscow: Yurayt Publishing House, 2020. - 206 p. - (Higher education). — ISBN 978-5-534-12433-0. — Text: electronic // Educational platform Urayt [website]. — URL: https://urait.ru/bcode/447483 (date of access: 02/01/2021).

5 Organization of biotechnological production: textbook for universities / A. A. Krasnoshtanova [and others]; edited by A. A. Krasnoshtanova. - Moscow: Yurayt Publishing House, 2021. - 170 p. - (Higher education). - ISBN 978-5-534-13029-4. — Text: electronic // Educational platform Urayt [website]. — URL: https://urait.ru/bcode/448767 (date of access: 02/01/2021).

6 Chechina, O.N. General biotechnology: textbook for universities / O.N. Chechina. - 3rd ed., revised. and additional - Moscow: Yurayt Publishing House, 2021. - 266 p. - (Higher education). — ISBN 978-5-534-13660-9. — Text: electronic // Educational platform Urayt [website]. — URL: https://urait.ru/bcode/474715 (date of access: 02/01/2021).**b) Additional:**

1 Auerman, L.Ya. Technology of baking production: Textbook / L.Ya. Auerman. - 9th ed., Revised. and add. / Under the total. ed. L.I. Puchkova. - St. Petersburg: Profession, 2009 .-- 416 p. http://lib.dvfu.ru:8080/lib/item?id=chamo:316025&theme=FEFU

2 Borisenko, L.A. Biotechnological basis for the intensification of production of salted meat products / A.A. Borisenko, A.A. Bratsikhin. - M .: DeLi print, 2010 .-- 163 p. http://lib.dvfu.ru:8080/lib/item?id=chamo:342770&theme=FEFU

3 Ivashov, V.I. Technological equipment for meat industry enterprises: a textbook for high schools / V.I. Ivashov. - St. Petersburg .: GIORD, 2010. - 736 pp. Http://lib.dvfu.ru:8080/lib/item?id=chamo{59114&theme=FEFU

4 Rogov, I.A. General technology of meat and meat products / I.A. Rogov, A.G. Zabashta, G.P. Kazyulin. - M.: KolosS, 2010 .-- 367 p. http://lib.dvfu.ru:8080/lib/item?id=chamo{40686&theme=FEFU

The list of resources of the information and telecommunication network "Internet".

1. http://elibrary.ru Scientific Electronic Library eLIBRARY.RU
2. The electronic library system "Doe" http://e.lanbook.com/
3. The electronic library system "IPRBOOK" http://www.iprbookshop.ru
4. Scopushttp database: http://www.scopus.com/home.url
5. Web of Science database http://apps.webofknowledge.com/
6. Database of full-texting academic journals in China http://oversea.cnki.net/
7. The electronic library of dissertations of the Russian State Library http://diss.rsl.ru/
8. EBSCO Electronic Databases http://search.ebscohost.com/

11. MATERIAL AND TECHNICAL SUPPORT OF PRODUCTION AND TECHNOLOGICAL PRACTICE

The venue of the practice is the structural units of FEFU (Department of Food Sciences and Technology), as well as organizations whose activities correspond to professional competencies mastered in the framework of the educational program 19.04.01 Biotechnology (at the student’s choice).

The practice bases may be workshops and laboratories of industrial enterprises of food and processing profile (meat processing enterprises) equipped with modern technological equipment and testing instruments that allow controlling the quality of raw materials and manufactured products, laboratories for analyzing and evaluating the quality of food products.

The main practice bases: Vladkhleb OJSC bread production enterprise; enterprises for the production of milk and dairy products: LLC Artyomovsky Dairy Plant, LLC Arsenyevsky Dairy Plant, LLC HAPK Green Agro; enterprises for the production of meat and sausages: LLC Elephant, LLC Dobroe del, LLC Nikolsk, LLC Ratimir; Confectionery company: Primorsky Confectioner OJSC, etc.

The material and technical support for the implementation of the practice on the basis of the Department of Food Sciences and Technologies includes lecture halls and practical classes equipped with multimedia equipment and corresponding to sanitary and opposing rules and norms.

№ п/п	**Name of special rooms and premises for independent work**	**Equipped with special rooms and rooms for independent work**
3	690022, Primorsky Territory, Vladivostok, Russky Island, Saperny Peninsula, village of Ajax 10, auditorium M 311. M311- The classroom for lecture-type classes, seminar-type classes, group and individual consultations, ongoing monitoring and interim certification.	Training furniture for 25 workplaces, teacher's place (table, chair), Analytical and technological equipment (M311): Milk centrifuge with heating ЦЛМ 1-12; Liquid thermostat LOIP Lt-208a, volume 8l, 120x150 / 200mm; Analyzer of milk quality Lactan 1-4 mod. 230; PH-millivolmeter with tripod pH-150MI; VSP 1.5-2-3T scales; Refrigerator "Ocean-RFD-325B"; Drying cabinet, stainless steel chamber. steel, 58l; electric stove 111CH 101-226589; PE-6110 magnetic stirrer with heating; VNZh-0,3-KhS3 viscometer (d-1.41) glass capillary; Tripod PE-2710 lab. for burettes. Multimedia equipment: Monoblock Lenovo C360G-i34164G500UDK; Screen with electric 236 * 147 cm Trim Screen Line; DLP projector, 3000 ANSI Lm, WXGA 1280x800, 2000: 1 EW330U Mitsubishi; Subsystem of specialized hardware mounts CORSA-2007 Tuarex; Video Switching Subsystem: DVI DXP 44 DVI Pro Extron matrix switcher; Extender DVI over twisted pair DVI 201 Tx / Rx; Subsystem of audio

		switching and sound reinforcement; ceiling mount speaker SI 3CT LP Extron; Sennheiser EW 122 G3 UHF Microphone Lavalier Radio System with a wireless microphone and receiver; DMP 44 LC Extron digital audio processor; Extron IPL T S4 Network Management Controller; Wireless LANs for students are provided with a system based on 802.11a / b / g / n 2x2 MIMO (2SS) access points.
4	690022, Primorsky Territory, Vladivostok, Russky Island, Saperny Peninsula, village of Ajax 10, auditorium M621. M621- The classroom for the implementation of design work, lecture-type classes, seminar-type classes, group and individual consultations, ongoing monitoring and interim certification.	Training furniture for 17 workplaces, Teacher's place (table, chair), Computer class: Monoblock Lenovo C360G-i34164G500UDK 19.5 "Intel Core i3-4160T 4GB DDR3-1600 SODIMM (1x4GB) 500GB Windows Seven Enterprise - 17 pcs; Wired LAN - Cisco 800 series; Wireless LAN for students is provided with a system based on 802.11a / b / g / n 2x2 MIMO (2SS) access points.
6	690922, Primorsky Territory, Vladivostok, Russky Island, Saperny Peninsula, village of Ajax, 10, building A, aud. A1017. Reading rooms of the FEFU Scientific Library with open access to the fund (building A - level 10) Audience for independent work of graduate students.	The room is equipped with specialized training furniture (seats - 15) Equipment: Monoblock Lenovo C360G-i34164G500UDK - 15 pcs. Integrated Polymedia FlipBox Touchscreen Display - 1 pc. Copier-printer-color scanner in e-mail with 4 trays Xerox WorkCentre 5330 (WC5330C - 1 pc.

In order to ensure special conditions for the training of disabled and disabled people in FEFU, all buildings are equipped with ramps, elevators, lifts, specialized places, equipped with toilets, information and navigation support signs.

For people with disabilities and people with disabilities, the choice of practice places is consistent with the requirement of their accessibility for these students and the practice is conducted taking into account the peculiarities of their psychophysical development, individual capabilities and health status.

Compiled by: Professor of the Department of Food Sciences and Technologies, Doctor of Biological Sciences, Professor Kalenik T.K., Associate Professor of the Department of Food Sciences and Technologies Novitckaia E.G.

The practice program was discussed at a meeting of the Department of Food Science and Technology, protocol №. 1 «28» September 2021.

ANNEX 1

MINISTRY OF EDUCATION AND SCIENCE OF THE RUSSIAN FEDERATION
Federal state autonomous educational institution
of higher education
«Far Eastern Federal University»
(FEFU)

INSTITUTE OF LIFE SCIENCES AND BIOMEDICINE (SCHOOL)

«AGREED»
Head of education program

_____FULL NAME.
"___" _____20__

INDIVIDUAL JOB

By _____
(Type of practice)
Student ___ group's _____
(Name of student)
Educational program _19.04.01 "Biotechnology"
Base (place, organization) of practice
_____
Duration of practice from _____20___Y. To _____ 20___ Y

Generalized wording of the assignment	

Task Schedule

The name of the tasks (activities) that make up the task	Date of completion of the task (event)
1.	
2.	
3.	

Head of Practice _____ _____
signature full name, position

APPENDIX 2

Practice Diary Example
Far Eastern Federal University
INSTITUTE OF LIFE SCIENCES AND BIOMEDICINE (SCHOOL)
Head of Practice from FEFU
_____
Head of practice from the host organization
_____
A DIARY
By _____ practice
Student _____ course _____ group
By program_____

Place of Practice _____
Duration of practice _____ weeks
_____

7. Student calendar

№ п\п	Name of work	Calendar dates		Surname of head of practice
		start	ending	

8. Student work diary

date of	Summary of work intern	Signature a manager

3. Report protection results
The report is protected by _____ _____ 20___
With a rating of _____

Director of DPNiT _____ Full name

ANNEX 3

Practice report title page form

MINISTRY OF EDUCATION AND SCIENCE OF THE RUSSIAN FEDERATION
Federal state autonomous educational institution
of higher education
«Far Eastern Federal University»
(FEFU)

INSTITUTE OF LIFE SCIENCES AND BIOMEDICINE (SCHOOL)

The report is protected with a rating of _____
"_____" _____ 20__ Y

Director of DPNiT
_____ Full name.

.

REPORT

On the passage of industrial and technological practice

_____

(Full name of the enterprise)

Student gr. _____ groups _____ (_____)
Signature full name

Supervisor
from the university _____ (_____)
Signature full name

APPENDIX 4
Form of referral to industrial practice

MINISTRY OF EDUCATION AND SCIENCE OF THE RUSSIAN FEDERATION
Federal state autonomous educational institution
of higher education
«Far Eastern Federal University»
(FEFU)

INSTITUTE OF LIFE SCIENCES AND BIOMEDICINE (SCHOOL)

N A P R A V L E N I E

To practice _____

Student of the master course
_____Last name First name _____group
(Full Name)

Seconded to_____
Name of base organization

Address_____

Order on referral to practical training No. _____

For passing _____

In the direction of preparation 19.04.01 Biotechnology for a period from _____ 201 to _____ 201 (continuous / discrete)

Head of Practice
Professional skills and experience in
Professional activity
M.P. _____ _____ _____

(Position, academic title) (Signature) (Full name)

Marks on the implementation and terms of practice

Company name	Arrival and Departure Mark	Signature, decryption of signature, stamp
Name of enterprise, organization in accordance with the contract	*Arrived* __.__.*20*__ г.	
	Arrived __.__.*20*__ г.	

Head of Practice _____ _____
signature full name,