




МИНИСТЕРСТВО НАУКИ И ВЫСШЕГО ОБРАЗОВАНИЯ РОССИЙСКОЙ ФЕДЕРАЦИИ
Федеральное государственное автономное образовательное учреждение высшего образования
«Дальневосточный федеральный университет»
(ДФУ)
ШКОЛА БИОМЕДИЦИНЫ

«СОГЛАСОВАНО»

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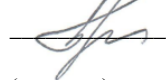
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«12» июля 2018 г.

«УТВЕРЖДАЮ»

Директор Департамента

пищевых наук и технологий

 Ю.В. Приходько

(подпись) (Ф.И.О.)

«12» июля 2018 г.

**РАБОЧАЯ ПРОГРАММА ПРОИЗВОДСТВЕННОЙ
ПРАКТИКИ**

**PRACTICE IN OBTAINING PRIMARY PROFESSIONAL SKILLS / ПРАКТИКА
ПО ПОЛУЧЕНИЮ ПЕРВИЧНЫХ ПРОФЕССИОНАЛЬНЫХ УМЕНИЙ И
НАВЫКОВ**

Направление подготовки 19.04.01 Биотехнология

Профиль подготовки Agri-Food Biotechnology

Квалификация (степень) выпускника

магистр

г. Владивосток
2018

1. REGULATORY DOCUMENTATION REGULATING THE PROCESS OF ORGANIZING AND PASSING PRACTICES

The practice program for obtaining primary professional skills (hereinafter referred to as the training) was developed in accordance with the requirements of the educational standard independently established by the FEFU, approved by the decision of the FEFU Academic Council, protocol No. 06-15 of 06/04/2015, and put into effect by order of the FEFU rector of 07.07 .2015 No. 12-13-1282.

2. OBJECTIVES OF DEVELOPMENT OF EDUCATIONAL PRACTICE

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

3. TASKS OF EDUCATIONAL PRACTICE

The objectives of educational practice in obtaining primary professional skills are:

- collection of material using information and communication technologies and taking into account the basic requirements of information security for solving standard tasks of professional activity;
- Acquaintance with the basic technological equipment, technological processes and safety requirements;
- Familiarization with regulatory and technical documentation, regulations, veterinary norms and rules in the production process.

4. PLACE OF TRAINING IN THE STRUCTURE OF OP

Block B2.V.01 (U) “Training Practice” of the educational standard independently established by the FEFU, direction 19.04.01 “Biotechnology”, approved by the decision of the FEFU Academic Council, protocol No. 06-15 of 06/04/2015, and entered into force by order Rector of FEFU from 07.07.2015 No. 12-13-1282, is mandatory, variable and represents a type of training sessions that are directly focused on professional and practical training of students.

Academic practice is the first stage of practical training at the level of higher education Master's degree and is aimed at students obtaining primary professional skills, including primary abilities and skills of research activities

Training practice is carried out both in third-party organizations that have the necessary human and scientific and technical potential (visiting), and on the basis of the Far Eastern Federal University (stationary).

The educational practice is based on the theoretical development of such disciplines as: Fundamentals of technology products of therapeutic and preventive nutrition / The principles of the technology of therapeutic and prophylactic nutrition, The concept of scientific research in biotechnology / The concept of scientific research in biotechnology, etc.

Student practice is an integral part of the educational process and is necessary for the subsequent study of the disciplines of the professional cycle (Production activities of agro-industrial complexes / Biotechnology of plants and animals / Biotechnology of plants and animals, Genetic modification of bacteria, plants and animals / Genetic modification of bacteria, plants and animals, etc.).

5. TYPES, METHODS, PLACE AND TIME OF TRAINING

Type of practice: The practice of obtaining primary professional skills.

Way of carrying out - stationary / exit (at the choice of the student).

Practice: continuous (2 weeks in 1 course).

Practice time: 1 semester

Place of practice:

The place of 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.

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

Students can independently offer places for practical training. The student begins the practice 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 the Federal State Autonomous Educational Institution of Higher Education “Far Eastern Federal University”.

The 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).

6. TRAINING COMPETENCIES FORMED AS A RESULTS OF TRAINING

Code and wording of competency	Competency Stages	
OK-13 readiness to use legal and ethical standards in assessing the consequences of their professional activities, in the development and implementation of socially significant projects	Knows	legal and ethical standards in assessing the consequences of their professional activities, in the development and implementation of socially significant projects
	Able to	willingness to use legal and ethical standards in assessing the consequences of their professional activities
	knows	skills of using legal and ethical standards in assessing the consequences of their professional activities, in the development and implementation of socially significant projects
PK-12 ability to plan and carry out activities to ensure industrial safety, environmental monitoring and protection	Knows	basics of industrial safety, regulatory and technical documentation, regulations, veterinary norms and rules
	Able to	put knowledge into practice in the field of industrial safety, monitoring and environmental protection
	knows	ways to ensure industrial safety, monitoring and environmental protection
PK-1 readiness for planning, organizing and conducting research in the field of biotechnology, the ability to correctly process the results of experiments and make	Knows	main areas of research in the field of agriculture and biotechnology
	Able to	to receive results and draw sound conclusions from scientific research in the field of agriculture and biotechnology

informed conclusions and conclusions	knows	basic knowledge of research methods in the field of agriculture and biotechnology
PK-15 willingness to ensure the stability of production indicators and the quality of products	Knows	standards for production quality indicators
	Able to	ensure the stability of production indicators and the quality of products
	knows	the ability to ensure the stability of production indicators and the quality of products

7. STRUCTURE AND CONTENT OF EDUCATIONAL PRACTICE

The total complexity of educational 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 hours)	Introductory lecture (2 hours)	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 (42h)	Safety briefing at the enterprise (2 hours)	Study of materials and documents at the place of practical training (20hours)	Processing and analysis of the obtained practice materials (22 hours)	Making entries in the diary. Oral conversations.

				rs))	
3	<p>The final stage:</p> <ul style="list-style-type: none"> - 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 (8h)	Presentation preparation (6h)	Report Protection (2 hours)	(2	Score with grade

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

The educational practice is aimed at familiarizing students with the logistics of the enterprise / workshop / laboratory, software and modern methods of analyzing raw materials.

During the training practice, regardless of the place of its passage, students should pay special attention to issues related to life safety, labor protection and industrial sanitation. For this, it is necessary to consider the principles of state and public control over the observance of labor legislation, the organization of the life safety service and its tasks.

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

Control questions:

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

2. Describe the material and technical base, raw material zone and capacity of the enterprise.

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

4. Describe the range of products.

5. Give a description of the production lines, describe the production scheme of the main names of products.

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

7. What forms of magazines are presented in the laboratory and on the production sites of the enterprise?

8. What measures are being taken on labor safety, on sanitary-hygienic, fire-preventive measures at the enterprise?

9. How are finished products delivered to retail chains?

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

Before passing the training practice, 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. 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.

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 training program are fully formed, 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 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 training program have not been 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.

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. directions for students special. 240902 "Food biotechnology" of all forms of education / comp. E.V. Makarova, Vladivostok: Publishing House of the Pacific Economic University, 2009. - 80 p.
<http://lib.dvfu.ru:8080/lib/item?id=chamo:356130&theme=FEFU>

2 Measuring methods for monitoring indicators of quality and safety of food: [study guide] [in 2 hours]: part 1. Products of plant origin /

V.V. Shevchenko, A.A. Vytovtov, L.P. Nilova [et al.]. St. Petersburg: Trinity Bridge, 2009. -- 303 p.
<http://lib.dvfu.ru:8080/lib/item?id=chamo:358418&theme=FEFU>

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

4 Training and industrial practice [Electronic resource]: guidelines / - Electron. textual data. — Kazan: Kazan National Research Technological University, 2016.— 52 p.
<http://www.iprbookshop.ru/63521.html>

5 Belozerova, M.S. Educational practice [Electronic resource]: teaching aid / M.S. Belozerova. - The electron. Dan. - St. Petersburg: NRU ITMO, 2016. -- 34 p. <https://e.lanbook.com/book/91457>

6 Introduction to the direction. Biotechnology [Electronic resource]: study guide / L.S. Dyshlyuk [et al.]. - The electron. Dan. - Kemerovo: KemSU, 2014. -- 157 p. <https://e.lanbook.com/book/60191>

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

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. Scopus 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 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 "Good deed", 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 IJIM 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-

		<p>2710 lab. for burettes.</p> <p>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.</p>
4	<p>690022, Primorsky Territory, Vladivostok, Russky Island, Saperny Peninsula, village of Ajax 10, auditorium M621.</p> <p>M621- The classroom for the implementation of design work, lecture-type classes, seminar-type classes, group and individual consultations, ongoing monitoring and interim certification.</p>	<p>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.</p>
6	<p>690922, Primorsky Territory, Vladivostok, Russky Island, Saperny Peninsula, village of Ajax, 10, building A, aud. A1017.</p> <p>Reading rooms of the FEFU Scientific Library with open access to the fund (building A - level 10) Audience for independent work of graduate students.</p>	<p>The room is equipped with specialized training furniture (seats - 15)</p> <p>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</p>

	pc.
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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.

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.

Compiled by (s):

Professor of the Department of Food Sciences and Technology,
Doctor of Biological Sciences, Professor Kalenik T.K.

Associate professor, Department of Food Sciences and Technology
E. Motkina

The practice program was discussed at a meeting of the Department of Food Sciences and Technology, protocol No. 1 dated July 11, 2018.



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

SCHOOL OF BIOMEDICINE

«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	
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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

Practice Diary Example
Far Eastern Federal University
School of Biomedicine

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

Practice report title page form



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(FEFU)

SCHOOL OF BIOMEDICINE

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

Director of DPNiT

_____ Surname I.O.

REPORT

on the passage of industrial and technological practice in

(full name of the enterprise)

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

Supervisor
from the university _____ (_____)
Signature full name



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SCHOOL OF BIOMEDICINE

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	<i>Arrived</i> __.__.20__ г.	
	<i>Arrived</i> __.__.20__ г.	

Head of Practice _____

signature full name, position