

Ministry of Education and Science of Ukraine
Sumy National Agrarian University
Faculty of food technologies
Department of food technologies

Work program (syllabus) of the educational component
EC 5 Professional practice

Specialty	181 "Food Technology"
Educational and professional program	Food technology
Level of higher education	Second (Master's)

Developers: Doctor of Philosophy, Associate
Professor of the Department of
Food Technology
Ph.D., Head of the Department
of Food Technology
Dr.D., Professor of the
Department of Food Technology

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Reviewed and approved at the meeting of the department of <u>Food Technology</u> (name of department)	protocol dated <u>31.05.2024</u> No. <u>19</u>
	Manager departments <u><i>[Signature]</i></u> Oksana MELNYK (signature) (first name, last name)

Agreed:

Guarantor of the OPP Fedir PERTSEVOY
(signature)

Dean of the Faculty of Food Technologies *[Signature]* Nataliia BOLHOVA
(signature)

The review of the work program was provided by

[Signature] Ph.D., Assoc. Prof. Oksana MELNYK
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Methodologist of the Department of Educational Quality
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Registered in the electronic database: date: 02.08. 2024.

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Information on reviewing the work program (syllabus):

[illegible]

1. GENERAL INFORMATION ABOUT THE EDUCATIONAL COMPONENT

1.	Name EC	EC 5 Professional practice		
2.	Status EC	Mandatory		
3.	Faculty/department	Faculty of Food Technology, Department of Food Technology		
4.	Program/Specialty(s) that include EC for	EP "Food Technologies" (2024) 181 "Food Technology"		
5.	NQF level	Level 7		
6.	Semester and duration of study	2nd semester, 6 weeks		
7.	Number of ECTS credits	10		
8.	Total hours and their distribution 300	Contact work (classes)		Independent work 300
		Lectures	Practical/seminar	Laboratory
		-	-	-
9.	Language of instruction	Ukrainian, English		
10.	Teacher/Educational Component Coordinator	Serhiy Petrovych Bokovets , Doctor of Philosophy, Senior Lecturer, Department of Food Technology		
10.1	Contact information	room 212m, Tel.: +380671878061, E-mail: sergiy_bokovec @ ukr.net		
11.	General description of the educational component	Professional practice is an integral part of the educational and professional training program for specialists in the relevant specialty and is aimed at developing practical skills, professional abilities, and the ability to perform innovative tasks in restaurant establishments and industry enterprises.		
12.	Purpose of the educational component	to form in students an understanding of all stages of the production process of food products at food and processing industry enterprises.		
13.	Prerequisites for studying EC, connection with other educational components of EP	1. The educational component is based on the disciplines: "Personnel Management and Innovative Development of Enterprises", "Innovative Technologies in Industry Enterprises", "Innovative Engineering", "Food Quality Management", "Research and Development".		
14.	Logistics and technical support for the implementation of the EC	Food industry enterprises can be the bases for production practice and internships. Enterprises can be of various types and any form of ownership and subordination.		
15.	Academic Integrity Policy	The study of EC is based on the principles of academic integrity and compliance with the requirements specified in the "Regulations on Academic Integrity of Sumy National Agrarian University".		
16.	Course link	https://cdn.snau.edu.ua/moodle/course/view.php?id=6062		
17.	Keywords	food technology, production, food enterprise, practice		

2. LEARNING OUTCOMES BY EDUCATIONAL COMPONENT AND THEIR RELATIONSHIP WITH PROGRAM LEARNING OUTCOMES

Results teaching by EC: <i>After studying the educational component, the student is expected to be able to...</i>	Program learning outcomes that the EC aims to achieve								How is it rated? PLO
	PLO 2	PLO 3	PLO 5	PLO 6	PLO 7	PLO 11	PLO 14	PLO 15	
PLO 1. Show initiative, creativity, and independence in the development and implementation of technical and technological innovations, make non-standard decisions, be responsible for their implementation, generate new ideas, and adapt to changing conditions of professional activity.	x								Preparation of a diary and practice report, practice defense
PLO 2. Apply modern specialized equipment, software, and research methods that meet the industry requirements of food technology in the process of conducting scientific and educational experiments in laboratories of various types.		x							
PLO 3. Develop and implement innovative technological solutions aimed at overcoming existing problems and developing the food industry, as well as participate in establishing foreign economic relations between enterprises and restaurant establishments.			x						
PLO 4. Plan, organize and optimize the activities of food industry enterprises, implement effective management models, rationally use resources and apply modern approaches to the organization of professional, scientific and production activities.				x					
PLO 5. To be guided by the trends of scientific and technological progress in the industry, to choose appropriate directions of research and technological improvement, to communicate the results of one's activities in a reasoned and accessible manner to a professional and non-professional audience.					x				
PLO 6. Use knowledge in the field of food quality and safety management to develop, implement and audit quality management systems in accordance with the requirements of HACCP, ISO and other international standards.						x			
PLO 7. Introduce waste-free technologies into the production activities of enterprises, apply innovative methods of storing and preserving food products, and use environmentally friendly materials, in particular bioplastics, for product packaging.							x		
PLO 8. Ensure the organization of enterprise activities in accordance with the requirements of occupational safety, resource conservation and environmental safety, taking into account legislative and regulatory requirements.								x	

3. CONTENT OF THE EDUCATIONAL COMPONENT (COURSE PROGRAM)

Topic. <i>List of issues that will be considered within the topic (practical training)</i>	Distribution within the overall time budget	Recommended reading
	Independent work / excursions	
Topic 1. Introduction to the organization of production at the enterprise. General familiarization with the organizational and economic characteristics of the enterprise. Study of safety techniques, fire prevention equipment, sanitation and hygiene conditions at the enterprise. General characteristics of the enterprise. Name of the enterprise, its location. Total area of the enterprise's territory. Production capacity, product range and sales markets. Location and purpose of the main and auxiliary premises and structures on the enterprise's territory and their mutual connection. Description of the production flow, starting with the receipt of raw materials, fuel, auxiliary materials and ending with the release of finished products. Supply of the enterprise with water and all types of energy.	25	1-18
Topic 2. Familiarization with the enterprise's supply system and sales of finished products. General idea of the cost price and selling price of a unit of production. Number of employees, including engineering and technical workers. Form of management at the enterprise in modern economic conditions.	25	1-18
Topic 3. Raw material base of the enterprise. Procedure for receipt, transportation and acceptance of raw materials. Purpose of the raw material department. Conditions for warehousing and storage of raw materials. Assessment of raw material quality.	25	1-18
Topic 4. Main production. Basic technological schemes of production, technological parameters taking into account the stage of the technological process. Familiarization with the main technological equipment.	25	1-18
Topic 5. The range of products produced by the enterprise. Assessment of the quality of finished products.	25	1-18
Topic 6. Packaging of finished products	25	1-18
Topic 7. Vehicles for semi-finished and finished products	25	1-18
Topic 8. Additional and auxiliary workshops, their availability and purpose. Analysis of hazardous factors	25	1-18

Topic 9. The enterprise laboratory, its purpose, location and equipment. Organization of work on standardization and product quality management. Understanding the purpose and organization of chemical-technological and radiation control at the enterprise. Organization of work on certification of product quality and safety level of raw materials and target products. Implementation of the HACCP system. HACCP plan. Familiarization with the regulatory and technological documentation in force at the enterprise, with accounting and reporting.	25	1-18
Topic 10. Analyze and describe the organization of work of food industry enterprises and restaurant establishments in accordance with the requirements of life safety, resource conservation, and environmental safety. Production waste, its further use and environmental protection, energy saving systems at the enterprise. Environmental pollution during the process of receipt, warehousing, storage and transportation for processing of raw materials and methods of reducing pollution. Sources of air pollution. Main pollutants, possible environmental consequences.	25	1-18
Topic 11. Presence of sources of acoustic, thermal, electromagnetic and radiation pollution. Sources of pollution and main environmental pollutants in auxiliary shops and areas (workshops, condenser department, CHP, boiler room, road transport, compressor department, etc.). Ways to reduce negative impact on the environment. Ecological passport and general assessment of the level of environmental friendliness of the enterprise.	25	1-18
Topic 12. Use of BIM (Building Information Model) technology at enterprises of the industry. Enterprise software for organizing technological processes.	25	1-18
Total	300	

4. TEACHING AND LEARNING METHODS

PLO	Teaching methods <i>(What types of learning activities should the student perform independently)</i>	Number of hours
PLO 1 PLO 2 PLO 3 PLO 4 PLO 5 PLO 6 PLO 7 PLO 8	Practical task: the student must perform a number of actions, including analysis of the technological process of food production, familiarization with the current regulatory framework (DSTU, HACCP, ISO, etc.), as well as visiting the structural divisions of the enterprise. The practice involves researching the activities of production units, studying their interaction and developing proposals for improving their work based on their own observations. The student interacts with shift and department managers for a deeper understanding of management processes, independently models' production situations and suggests ways to solve them. The task involves planning and implementing practical activities in real production conditions, analyzing the results achieved, independently assessing mistakes made and keeping a practice diary.	250
	Individual tasks: The student must collect, process and systematize the information materials necessary to complete the assigned task. After completing the internship, it is planned to compile a report in accordance with the established requirements, prepare presentation materials and publicly defend the results of the completed individual task.	50

5. EVALUATION BY EDUCATIONAL COMPONENT

5.1. Summative assessment

5.1.1. To assess the expected learning outcomes, there are

No.	Methods summative evaluation	Points / Weight in general assessment	Date drafting
1.	Preparation of documents for internship and briefing on occupational safety and health (internship diary)	10 points /10%	1st week
2.	Implementation of the internship program. Gathering material for writing a report on industrial internship.	30 points /30%	during practice
3.	Writing and design individual assignment (practicum report) Requirements for the internship report: The volume of the report is at least 30 pages of typewritten text. Approximate content: - Title page - Content. - The main part (according to the individual task). - The list of used literature will be drawn up in accordance with current rules after the main text.	30 points / 35%	6th week
4.	Defense of an individual assignment in the form of a report-presentation, joint discussions	30 points / 25%	6th week
Total		100 points	

5.1. Formative assessment:

To assess current progress in learning and understand areas for further improvement,

No.	Elements of formative assessment	Date
1	Verbal feedback from practice managers and students.	During internship.
2	Checking and discussing the individual production task by the supervisor and the student practices.	After completion of the internship period.
3	Oral feedback on the internship report.	After defending the internship report.

The form of final control is ***differential assessment***.

The applicant **is not allowed** to take the final practice test (defense) if he **missed and did not complete more than 20% of the practice hours**, did not complete the mandatory list of types of work, tasks (certain individual tasks) provided for in the working curriculum for this educational component, or has **an unsatisfactory rating** on the result **(0–59 points)**.

EVALUATION BY EDUCATIONAL COMPONENT (ASSESSMENT CRITERIA)

Component	Unsatisfactorily <i>0 points</i>	Satisfactorily <i>1-7 points</i>	Good <i>7-9 points</i>	Perfectly <i>10 points</i>
Preparation of documents for internship and briefing on occupational safety and health (internship diary)	The diary is missing and the presence of other control objects is not taken into account. An overall negative assessment is given for completing the internship.	The diary was drawn up in violation of the established requirements and does not contain the information provided for in it (in particular, regarding the content of the tasks performed).	The diary generally contains appropriate information, but is designed in violation of established requirements.	The diary is properly formatted and contains complete information about the intern's activities.
Program execution practices.	<i>0 points</i> The higher education student systematically violated the established deadlines for completing assignments. The requirements for the internship program have not been met.	<i>1-15 points</i> The higher education applicant did not adhere to the internship schedule. Most of the requirements were met, but some points of the internship content were missing or not sufficiently disclosed.	<i>16-26 points</i> The higher education applicant generally adhered to the internship schedule, but allowed deviations from the recommendations, while fulfilling all the requirements of the internship program.	<i>27-30 points</i> The higher education applicant strictly adhered to the internship schedule. He conscientiously and on time fulfilled all the requirements of the internship program. He proposed his own solution to the assigned tasks, demonstrated activity, purposefulness, and creativity.
Writing and preparing an internship report	<i>0 points</i> The report does not meet the established requirements for content, does not contain proper information about the content, form, and organization of activities carried out during the internship, and contains gross errors in content.	<i>1-15 points</i> The internship program was completed satisfactorily, its results are reflected in the report, which contains certain inaccuracies or does not contain important information, or there are other significant comments regarding the content of the report.	<i>16-26 points</i> The report generally covers the necessary information stipulated by the requirements, contains a high positive assessment of the manager, however, there are minor remarks. From the content, it can be concluded that the internship program was completed in full and properly, in a way.	<i>27-30 points</i> The report contains all the necessary information regarding the organization process and the results of the internship. The internship program was completed fully and properly.
Presentation of the internship report	<i>0 points</i> If there is a negative characteristic of the supervisor from the practice base or the supervisor from the department, a positive assessment of the practice is impossible. If the higher education applicant did not complete the practice program at least at one of the stages of the practice and received 0 points for the corresponding report, then the points received for other reports are not taken into account, and an overall negative assessment is given based on the results, completing the internship.	<i>1-15 points</i> The higher education applicant does not provide satisfactory answers to the questions posed, is not familiar with the internship program or its individual parts, or makes gross errors that allow us to conclude that the internship program was not completed or was not properly completed, indicating the lack of real results of the internship and the acquired practical skills and abilities.	<i>16-26 points</i> The higher education applicant demonstrates appropriate knowledge, is mostly oriented towards the content of the submitted report and the internship program, however, there are some inaccuracies in the answers to the questions.	<i>27-30 points</i> The higher education applicant demonstrates appropriate knowledge, is fluent in the content of the submitted report and the internship program as a whole, thereby confirming its completion; provides correct and reasoned answers to all questions from the internship program.

EVALUATION BY EDUCATIONAL COMPONENT (RATING SCALE) ECTS)

On a scale ECTS	On a 100-point scale	On a national scale	Definition*
AND	90-100	perfectly	excellent – excellent performance with a small number of inaccuracies
B	82-89	good	very good – above average with a few minor errors
C	75-81		good – overall, the work was done correctly with a small number of errors
D	69-74	satisfactorily	satisfactory – not bad, but with a significant number of shortcomings
E	60-68		sufficient – performance meets minimum criteria
FX	35-59	unsatisfactory with the possibility of reassembly	unsatisfactory – needs work before getting a positive rating
F	0-34	unsatisfactory with mandatory retake	unsatisfactory – serious follow-up work with re-study of the course is needed

LEARNING RESOURCES (LITERATURE)

5.2. Main sources

1. Methodological instructions for completing professional practice at food industry enterprises for students of the 1st year of the Master's degree program in specialty 181 "Food Technologies" / compiled by F.V. Pertsevov, O.Yu. Melnyk, S.M. Sabadash, N.V. Bolgova, O.G. Sereda. Sumy, 2021. 32 p.
2. Methodological instructions for completing a qualifying master's thesis for students of specialty 181 "Food Technologies" of full-time and part-time forms of study / compiled by F.V. Pertsevov, O.Yu. Melnyk, M.M. Samilyk, A.O. Gelikh, S.G. Turchina. Sumy, 2021. 56 p.
3. Professional practice program for 1st year students of the Master's degree program in specialty 181 "Food Technologies" / compiled by F.V. Pertsevov, O.Yu. Melnyk, N.V. Bolgova, S.M. Sabadash, O.G. Sereda. Sumy, 2021. 20 p.

6.2 Additional sources

4. Gastronomic innovations. Textbook / compiled by Samilyk M.M., Bolgova N.V., Demidova E.V. Sumy: SNAU, 2025, p. 324.
5. Hygiene and sanitation of processing enterprises: a textbook / Ministry of Education and Science of Ukraine; Kharkiv State Biotechnological University; Vinnytsia Trade and Economic Institute of KNTU. Kharkiv: World of Books, 2022. 222 p.
6. Ecotechnologies in food production. Textbook / compiled by Demidova E. V. Samilyk M. M., Synenko T. P. Sumy: SNAU, 2025 p. 324.
7. Methods of quality control of food products: a textbook; Ed. L. M. Krainiuk. Sumy: University Book, 2024. 512 p.
8. Design of food enterprises and restaurant establishments: a basic lecture notes for students of the first (bachelor's) level of higher education studying in specialty 181 "Food Technologies" / edited by V. I. Tyshchenko. Sumy: SNAU, 2023.
9. Technologies of processing plant raw materials: a textbook / compiled by Synenko T. P., Demidova E. V. Sumy: SNAU, 2025, p. 276.
10. Food safety management according to the principles of the HACCP system. Textbook / compiled by Bolgova N.V., Samilyk M.M., Nazarenko Y.V., Synenko T.P., Tyshchenko V.I., Guba S.O. Sumy: SNAU, 2025, p. 423.
11. Technological equipment of the bakery and pasta industry: [textbook] / K. O. Samoychuk, V. O. Oleksienko, N. O. Palyanychka, V. F. Yalpachyk; edited by O. T. Lisovenko. — Kyiv: ProfKnyga, 2021. — 372 p.
12. Technology of bakery production: textbook / V. I. Drobot. — 2nd ed., supplemented and revised. — Kyiv: ProfKnyga, 2024. — 516 p.
13. 10. Sirokhman, I.V. Commodity science of meat and meat products [Text]: / I.V. Sirokhman, T.M. Rosystyuk., K. :2020.
14. Innovative engineering in certain branches of food production [Electronic resource]: teaching manual / O. A. Pivovarov, O. S. Kovaleva, V. S. Koshulko; Dnipro State Agricultural and Economic University - Dnipro: FOP Obdymko O. S., 2022. - 407 p.
15. DSTU 7517:2014 Bread made from wheat flour. General technical conditions.
16. DSTU 4683:2006 Confectionery. Methods for determining organoleptic quality indicators, dimensions, net weight and components.
17. DSTU 8004:2015 Food concentrates. Methods for determining moisture.
18. DSTU 7043:2020 Pasta products. General technical conditions

Review on working program (syllabus)

Parameter, by which is being evaluated working program (syllabus) of the educational component by the guarantor or member project group	Yes	No	Comment
Results teaching by educational component (PLO) respond NRC			
Results teaching by educational component (PLO) respond foreseen PLO (for mandatory EC)			
Results teaching by educational component give possibility to measure and to evaluate level their achievement			

Member project groups EP _____ Melnyk O.Yu.

(name)

(full name) (signature)

Parameter by which the work program is evaluated(syllabus) of the educational component by the teacher of the relevant department	Yes	No	Comment
General information about educational component there are sufficient			
Results teaching by educational component (PLO) correspond NRC			
Results teaching by educational component PLO) give the opportunity to measure and to evaluate level their achievement			
Results teaching (PLO) relate to students' competencies, and not content disciplines (contain knowledge, skills, skills, and not topics educational programs disciplines)			
Content EC formed in accordance to structural and logical diagram			
Educational activity (teaching and learning methods) gives opportunity students achieve expected results training (DRN)			
The educational component involves learning through research, what there are appropriate and sufficient for relevant equal higher education			
Strategy assessment within educational component corresponds politics University/Faculty			
The provided evaluation methods allow to assess degree of achievement of learning outcomes by educational component			
Load students there are adequate volume educational component			
The recommended learning resources are sufficient to achieve results teaching (PLO)			
Literature there are relevant			
List educational resources contains necessary to achieve PLO software products			

Reviewer (teacher departments) food technology
(name)

Koshel O.Yu.
(position, Full name)

(signature)

