

Ministry of Education and Science of Ukraine
Sumy National Agrarian University
Faculty of Food Technologies
Department of Food Technology

Syllabus of the educational component

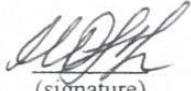
EC 31 ORGANIZATION OF FOOD INDUSTRY ENTERPRISES

Implemented within the educational program
G– Engineering, Manufacturing and Construction
in specialty **G13 - Food Technology**
at **the first (bachelor's)** level of higher education

Developer:

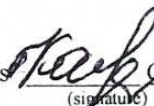


Tetiana NAUMENKO, Assistant of the Department of Food Technology

Reviewed, approved and approved on Meetings departments food technology (name of department)	protocol dated 02.06.2026 No. <u>21</u>
	Manager departments  (signature) Oksana MELNYK (last name, initials)

Agreed:

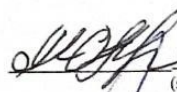
Guarantor of the educational program "Food Technologies"


(signature) Olena KOSHEL
(full name)

Dean of the Faculty of Food Technology,
where the educational program is implemented

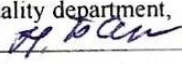

(signature) Nataliia BOLHOVA
(full name)

Review of the work program provided by:


(signature) Oksana MELNYK (attached)
(full name)


(signature) Tetyana SYNENKO (signature)
(full name)

Methodologist of the education quality department,
licensing and accreditation


(signature) N. Baranik
(full name)

Registered in the electronic database: date: 07.07. 2026.

Information about reviewing the work program (syllabus):

[illegible]

1. GENERAL INFORMATION ABOUT THE EDUCATIONAL COMPONENT

1.	Name of the EC	EC 31 Organization of food industry enterprises			
2.	Faculty / Department	Faculty of Food Technologies / Department of Food Technology			
3.	Status of the EC	Mandatory			
4.	<i>Educational Programme / Specialty (programmes) that include the EC (completed for mandatory ECs)</i>	Educational Programme: Food Technologies / Specialty: 181 “Food Technologies			
5.	The EC may be offered for	EVP “Food Technologies			
5.	NQF Level	Level 6			
6.	Semester and duration of study	Seventh semester – full-time study; fifth and seventh semesters – part-time study. Duration of study – 15 weeks; part-time study – according to the schedule			
7.	Number of ECTS credits	5 credits			
8.	Total number of hours and their distribution	Contact work (classes).			Independent work
		Lectures	Practical classes	Laboratory classes	
		full-time 30 / part-time 8	-	full-time 44 / part-time 16	full-time 76 / part-time 126
9.	Language of instruction	Ukrainian			
10	Lecturer / Coordinator of the Educational Component	Tetyana Anatoliivna Naumenko, Assistant of the Department of Food Technology			
10.1	Contact information	Room 212m, tel.: +380669720201; E-mail: t.yarmosh.phd@snaeu.edu.ua			
11.	General description of the Educational Component	The educational component is aimed at developing students’ theoretical knowledge and practical skills in organizing the activities of industry enterprises. During the course, students master the principles of organizing production, service, and management processes, enterprise activity planning, organization of structural units, analysis of their operational efficiency, and making justified organizational and managerial decisions.			
12.	Aim of the Educational Component	To develop students’ theoretical knowledge and practical skills in organizing the activities of industry enterprises, planning production, service, and management processes, organizing the work of structural units, ensuring efficient use of resources, making justified organizational and managerial decisions, and ensuring the effective functioning of industry enterprises.			
13.	Prerequisites for studying the EC and connection with other Educational Programme components	The educational component is related to other educational components: “Technologies of Grain, Bread, Pasta, Confectionery Products and Food Concentrates”, “Technologies of Plant Raw Material Processing”, “Technology of Water, Non-Alcoholic, Low-Alcohol and Alcoholic Beverages”, “Technologies of Milk and Dairy Products”, “Technologies of Meat, Meat Products and Fish”, “Educational Practice”, and “Industrial Practice”.			
14.	Academic Integrity Policy	The study of the educational component is based on the principles of academic integrity and compliance with the requirements of the “Regulations on Academic Integrity of Sumy National Agrarian University”. Higher education students are required to independently complete all types of academic work			

		and avoid academic plagiarism, self-plagiarism, fabrication, falsification, cheating, and other violations of academic integrity. Laboratory, individual, and other written assignments containing signs of academic misconduct or identical to the works of other students are not accepted and must be revised and defended again. In case of violation of academic integrity rules during current or final assessment, the student is subject to academic responsibility in accordance with the current university regulations and may be required to repeat the relevant assignment.
15.	Link to the course in the Moodle system	https://cdn.snau.edu.ua/moodle/course/view.php?id=6398
16	Keywords	Industry enterprise, production organization, organizational structure, production programme, production processes, production flows, material and technical support, operational planning, personnel management, labour organization, production logistics, production efficiency.

2. LEARNING OUTCOMES OF THE EDUCATIONAL COMPONENT AND THEIR RELATIONSHIP WITH PROGRAMME LEARNING OUTCOMES

Learning Outcomes of the Educational Component: After completing the educational component, the student is expected to be able to...	Programme Learning Outcomes aimed to be achieved by the Educational Component (indicate the number according to the numbering provided in the Educational Programme profile)									How is the DRE assessed?
	PLO1	PLO4	PLO5	PLO6	PLO8	PLO9	PLO14	PLO27	PLO30	
DLO1. To know the organizational principles of industry enterprises functioning, the principles of developing organizational structures, production and service processes.	X									Preparation and defence of laboratory works, module testing, non-formal education, participation in scientific conferences, differentiated credit.
DLO2. To be able to search, analyze, and use regulatory, scientific, and production information to justify organizational decisions at industry enterprises.		X								
DLO3. To understand the relationship between technological processes and production organization when planning enterprise activities.			X							
DLO4. Враховувати особливості технологічних процесів і властивостей харчової сировини під час організації виробництва та виробничих процесів.				X						
DLO5. To justify organizational decisions regarding the implementation of modern technologies and the improvement of production processes in accordance with industry development trends.					X					
DLO6. To be able to use regulatory and technical documentation and participate in the preparation of organizational and technological documentation of an enterprise.						X				

DLO7. To analyze the efficiency of the use of material, labour, and production resources and justify measures aimed at improving the efficiency of enterprise activities.							X		
DLO8. To adhere to the principles of social responsibility, corporate culture, a healthy lifestyle, and sustainable development when organizing enterprise activities.								X	
DLO9. To apply rational methods of production, labour, and management organization to ensure the efficient functioning of industry enterprises.									X
LIST OF COMPETENCIES TO BE IMPROVED / ACQUIRED IN THE PROCESS OF NON-FORMAL EDUCATION									
Procurement Specialist									
General competencies: ability to work in a team; ability to make justified decisions; ability to analyze information and solve professional tasks; skills in using information and communication technologies. Professional competencies: ability to analyze the supplier market, plan procurement activities, and justify supplier selection; understanding of the principles of procurement organization, supply chain management, conducting tender procedures, concluding contracts, and assessing risks during procurement activities.	https://osvita.djia.gov.ua/course/s/purchasing-manager						Form of learning outcomes confirmation: certificate of successful completion of the course indicating the number of hours. The authenticity of the certificate can be verified through the link provided on it.		

Learning Outcomes of the Educational Component: After completing the educational component, the student is expected to be able to...	Programme Learning Outcomes aimed to be achieved by the Educational Component (indicate the number according to the numbering provided in the Educational Programme profile)						How is the DRE assessed?
	PLO1	PLO4	PLO14	PLO16	PLO19	PLO29	
DLO1. To know and understand the theoretical foundations, principles, and modern concepts of food industry enterprise organization, as well as the features of production process organization and the functioning of production systems.	X						Preparation and defence of laboratory works, module testing, non-formal education, participation in scientific conferences, differentiated credit.
DLO2. To search, analyze, and summarize scientific and technical information from various sources and apply it to solve tasks related to the organization of production processes and activities of food industry enterprises.		X					
DLO3. To improve the efficiency of food industry enterprises by justifying and implementing modern organizational, resource-saving, and waste-free solutions aimed at the rational use of production resources.			X				
DLO4. To comply with occupational safety requirements, industrial sanitation, and production environment safety, as well as to implement organizational measures aimed at minimizing production risks at food industry enterprises.				X			
DLO5. To organize one's own activities and work effectively both individually and in a team when					X		

solving production and organizational tasks of food industry enterprises.							
DLO6. To have skills in organizing the work of production units of food industry enterprises, coordinating their interaction, and ensuring the effective functioning of production processes.						X	
LIST OF COMPETENCIES TO BE IMPROVED / ACQUIRED IN THE PROCESS OF NON-FORMAL EDUCATION							
Procurement Specialist							
General competencies: ability to work in a team; ability to make justified decisions; ability to analyze information and solve professional tasks; skills in the use of information and communication technologies. Professional competencies: ability to analyze the supplier market, plan procurement activities, and justify the selection of suppliers; understanding of the principles of procurement organization, supply chain management, conducting tender procedures, concluding contracts, and assessing risks during procurement processes.					https://osvita.dia.gov.ua/courses/purchasing-manager	Form of confirmation of learning outcomes: certificate of successful completion of the training course indicating the number of hours. The authenticity of the certificate can be verified through the link provided on it.	

3. CONTENT OF THE EDUCATIONAL COMPONENT (CURRICULUM OF THE ACADEMIC DISCIPLINE)

Topic. List of issues to be considered within the topic	Distribution within the total time budget			Recomm ended literature
	Classroom work		Ind. work full-time / part-time	
	Lec. full-time / part-time	Lab. classes full-time / part-time		
Module 1				
Lecture 1. Characteristics of the Food Industry of Ukraine and Tasks for Its Development 1. Characteristics of the Food Industry of Ukraine; 2. Current Tasks for the Development of the Food Industry Questions for Independent Study. Regulation of the Activities of Food Industry Enterprises	2/-	-	3/5	[1-18]
Lecture 2. Characteristics and Current State of the Food Industry Sectors of Ukraine (Part 1) 1. Oil and Fat Industry 2. Sugar Industry 3. Alcohol Industry Questions for Independent Study. Innovative Development of Food Industry Enterprises Laboratory Class 1. Analysis of the Current State and Organization of the Activities of a Food Industry Enterprise	2/2	4/4	2/6	[1-18]
Lecture 3. Characteristics and Current State of the Food Industry Sectors of Ukraine (Part 2) 1. Beer and Soft Drinks Industry; 2. Confectionery Industry; 3. Bakery Industry; Questions for Independent Study. Peculiarities of Production Organization at Food Industry Enterprises	2/2	4/4	2/4	[1-18]

Laboratory Class 2. Study of By-Products and Production Waste of a Selected Food Industry Sector				
Lecture 4. Characteristics and Current State of the Food Industry Sectors of Ukraine (Part 3) 1. Dairy Industry; 2. Meat Industry Questions for Independent Study. Organizational and Legal Forms of Enterprise Associations Laboratory Class 3. Study of the Organization and Production Specialization of Food Industry Enterprise Associations	2/-	4/-	4/4	[1-18]
Lecture 5. Industrial Enterprise. Peculiarities of Production Processes at Food Industry Enterprises 1. Industrial Enterprise. Main Features, Characteristics and Tasks; 2. Production Structure of an Enterprise. Questions for Independent Study. Production Process. Components of the Production Process. Production Cycle. Laboratory Class 4. Analysis of the Technological Process and Selection of Equipment for Food Production	2/-	4/-	5/6	[1-18]
Lecture 6. Organization of Main Production. Types of Production 1. Content and Tasks of Organizing Main Production at Food Industry Enterprises; 2. Types of Production Questions for Independent Study. Improving the Efficiency of Flow Production	2/-	4/-	5/8	[1-18]
Lecture 7. Production Capacity 1. Definition of Production Capacity. Types of Production Capacity; 2. Calculation of Production Capacity Questions for Independent Study. Determination of Production Capacity Reserves Laboratory Class 5. Development of an Employee Motivation System at an Enterprise	2/-	4/-	5/8	[1-18]
Non-formal education				
Procurement specialist 1. Skills and responsibilities of a procurement specialist 2. Fundamentals of procurement 3. Analytical methods and tools of a procurement specialist			10/10	https://osvita.diia.gov.ua/courses/purchasing-manager
Total for Module 1:	14/4	20/8	36/51	
Module 2				
Lecture 8. Labor Process and Work Organization at Enterprises 1. Labor Process; 2. Work Organization; Questions for Independent Study. Creating Favorable Working Conditions Laboratory Class 6. Creating Favorable Working Conditions and Improving Workplace Organization	2/2	4/4	5/8	[1-18]
Lecture 9. Labor Motivation and Wage Organization at Enterprises (Part 1)	2/2	4/4	5/8	[1-18]

1. Definition of Motivation. Theories of Motivation; 2. Modern Approaches to Labor Motivation at Enterprises Questions for Independent Study. Material Incentives for Labor Laboratory Class 7. Development of an Employee Motivation System at an Enterprise				
Lecture 10. Labor Motivation and Wage Organization at Enterprises (Part 2) 1. Tariff System; 2. Organization of Wages at Enterprises; Questions for Independent Study. Determination of the Wage Level at Food Industry Enterprises Laboratory Class 8. Calculation of the Wage Level of Employees at Food Industry Enterprises	2/-	4/-	5/8	[1-18]
Lecture 11. Organization of Comprehensive Production Maintenance 1. Concept, Types and Importance of Technical and Social Production Maintenance; 2. Organization of Maintenance Services; 3. Organization of Energy Services; Questions for Independent Study. Organization of Transport Services. Characteristics of the Material and Technical Supply System of Production and Organization of Warehouse Management	2/-	-/-	2/9	[1-18]
Lecture 12. Organization of Innovation Processes at an Enterprise 1. Definition of Innovation Activity; 2. Types of Innovation Activity Questions for Independent Study. Innovation Process Laboratory Class 9. Study of the Innovation Process at an Enterprise	2/-	4/-	2/9	[1-18]
Lecture 13. Organizational Forms of Innovation Activity 1. General Approaches to Determining Organizational Forms of Innovation Activity; 2. Intra-Firm Organizational Forms of Innovation Activity. Questions for Independent Study. Inter-Firm Organizational Forms of Innovation Activity Laboratory Class 10. Study of Organizational Forms of Innovation Activity at an Enterprise	2/-	4/-	2/9	[1-18]
Lecture 14. Ensuring Product Quality and Organization of Control at an Enterprise 1. Classification of Product Quality Indicators; 2. Methods for Determining Product Quality Indicators; Questions for Independent Study. Standardization and Certification of Product Quality	2/-	-/-	4/8	[1-18]
Lecture 15. Organization of Control at Food Industry Enterprises 1. Control and Its Role in Ensuring Production Efficiency; 2. Management Control Tools Questions for Independent Study. Product Quality	2/-	4/-	5/6	[1-18]

Control Laboratory Class 11. Evaluation of the Competitiveness of Food Products Based on Quality Indicators				
Student scientific conference abstracts				
Writing an abstract on one of the topics covered during the course			10/10	
Total for Module 2:	16/4	24/8	40/75	
Total	30/8	44/16	76/126	

1. TEACHING AND LEARNING METHODS

2.

DLO	Teaching methods (activities carried out by the teacher during classroom classes and consultations)	Number of hours	Learning methods (types of learning activities that the student should perform independently)	Number of hours
DLO1- DLO6 DLO1 – DLO9	Interactive lecture: use of multimedia presentations, diagrams, videos, discussion of real scientific cases, inclusion of mini-discussions or online polls (Mentimeter, Kahoot). Problem-Based Learning (PBL): presentation of a real or simulated scientific problem in the food industry, group work aimed at finding ways to investigate and solve it. Flipped classroom method: independent study of theoretical materials (videos, podcasts, articles) followed by practical discussion in the classroom and reflective assignments. Practical learning: completion of mini-projects by students focused on studying the production activities of food industry enterprises and presentation of the obtained results.	30/8 44/16	Active learning: discussions in small groups, brainstorming based on literature review. Research-based learning: students formulate questions and hypotheses, investigate them, and work with real data or simulated experiments. Project-based learning: completion of individual or group research projects related to food technologies, presentation of results, and defence before an audience. Reflective learning: maintaining a workbook and discussing individual research progress.	76/126

5. ASSESSMENT OF THE EDUCATIONAL COMPONENT

5.1 Summative assessment

5.1.1. The following methods are provided for assessing the expected learning outcomes

№	Summative assessment methods	Points / Weight in the final grade	Date of assessment
Full-time study			
Module 1 (50 points)			
1.	Completion of laboratory works (5 laboratory works × 3 points each)	15 points / 15%	Within 5 days after the class
2.	Intermediate testing (multiple-choice test)	25 points / 25 %	By the end of week 8
3	Non-formal education	10 points / 10 %	By the end of week 8
Модуль 2 (50 балів)			
4	Completion of laboratory works (6 laboratory	18 points/ 18 %	Within 5 days after the

	works × 3 points each)		class
5	Intermediate testing (multiple-choice test)	20 points / 20%	By the end of week 14
6	Preparation and publication of an abstract	12 points / 12 %	By the end of week 14
Part-time study			
Module 1 (50 points)			
1	Completion of laboratory works (2 laboratory works × 5 points each)	10 points / 10 %	Within 5 days after the class
2	Intermediate testing (multiple-choice test)	25 points / 25 %	By the end of week 8
3	Non-formal education	10 points / 10 %	By the end of week 8
4	Presentation of an assignment on a given topic	5 points / 5 %	By the end of week 8
Module 2 (50 points)			
1	Completion of laboratory works (2 laboratory works × 5 points each)	10 points / 10 %	Within 5 days after the class
2	Intermediate testing (multiple-choice test)	20 points / 20%	By the end of week 14
3	Presentation of an assignment on a given topic	10 points / 10 %	By the end of week 14
4	Preparation and publication of an abstract	10 points / 10 %	By the end of week 14

5.1.1. Критерії оцінювання

Component	Unsatisfactory	Satisfactory	Good	Excellent
Full-time study				
Defence of laboratory works (per 1 laboratory work)	0 points	1 points	2 points	3 points
	The student completed the laboratory work but did not defend it	Most requirements are fulfilled, but some components are missing	All task requirements are fulfilled	All task requirements are fulfilled; thoughtfulness is demonstrated, and an individual solution to the problem is proposed
Testing (multiple-choice test)	The test includes 20–25 questions, each assessed at 1 point			
Preparation of an abstract and participation in an international / national scientific conference	Participation of the student in an international or national scientific conference confirmed by a certificate is assessed at 12 points			
Non-formal education	Successful completion of an online course confirmed by a personal certificate is assessed at 10 points			
Part-time study / shortened study period				
Defence of laboratory works (per 1 laboratory work)	0 points	2 points	4 points	5 points
	The student completed the laboratory work but did not defend it	Most requirements are fulfilled, but some components are missing	All task requirements are fulfilled	All task requirements are fulfilled; thoughtfulness is demonstrated, and an individual solution to the problem is proposed
Testing (multiple-choice test)	The test includes 20–25 questions, each assessed at 1 point			

Preparation of an abstract and participation in an international / national scientific conference	<i>Participation of the student in an international or national scientific conference confirmed by a certificate is assessed at 10 points</i>
Non-formal education	<i>Successful completion of an online course confirmed by a personal certificate is assessed at 10 points</i>
Presentation of an assignment on a given topic	<i>The assignment involves preparing a presentation related to the discipline topics. For completing one assignment, the student can receive up to 5 points.</i>

5.1. Formative Assessment:

The following methods are provided to assess current learning progress and identify areas for further improvement:

№	Elements of formative assessment	Date
1	Oral questioning after studying all topics during laboratory classes	During laboratory work
2	Feedback in the form of discussion of the final test results	Weeks 8 and 14
3	Feedback on abstract writing, presentation preparation, and completion of non-formal education	Weeks 8 and 14
4	Feedback in the form of discussion of the non-formal education course	After completion of the course

The form of final assessment is a differentiated credit. The final number of points for the discipline (maximum 100 points per semester) is determined as the sum of points obtained based on the student's performance during the semester.

A student is not allowed to take the final assessment in the discipline if they have missed and not completed more than 20% of classes, have not passed module assessment stages, have not completed the mandatory list of types of work and assignments (laboratory works and specific individual assignments) provided by the working curriculum for the semester in this academic discipline, or have an unsatisfactory semester rating (0–41 points).

6. LEARNING RESOURCES (LITERATURE)

6.1 Main References

1. Organization of Industry Enterprises: lecture notes for 4th-year and 2nd shortened-term Bachelor's degree students of Specialty 181 "Food Technologies", full-time and part-time study forms / compiled by T. A. Naumenko. – Sumy: Sumy National Agrarian University, 2026. – p.

2. Organization of Industry Enterprises: guidelines for laboratory works for 4th-year and 2nd shortened-term Bachelor's degree students of Specialty 181 "Food Technologies", full-time and part-time study forms / compiled by T. A. Naumenko. – Sumy: Sumy National Agrarian University, 2026. – p.

3. Organization of Industry Enterprises: guidelines for independent work for students of Specialty G13 "Food Technologies", Educational and Professional Programme "Food Technologies", full-time and part-time Bachelor's degree study forms / compiled by T. A. Naumenko. – Sumy: Sumy National Agrarian University, 2026. – p.

6.2. Additional References

4. Organization of Production at Food Industry Enterprises: textbook / T. L. Mostenska. – Kyiv: Kondor, 2025. – 492 p.

5. Quality Management Systems at Food Industry Enterprises: textbook / V. V. Kiiko, O. P. Melnyk, O. V. Kuzmin, N. V. Popova. – Kyiv: Oldi+, 2023. – 272 p.

6. Energy-Efficient Technologies in the Food Industry: textbook / V. P. Pustovoitenko, O. O. Serohin, V. B. Kyseliov. – Kyiv: Oldi+, 2022. – 548 p.

7. Innovative Technologies of Food Production: monograph / V. A. Piddubnyi, M. F. Kravchenko, A. O. Chahaida, S. V. Krasnozhan; edited by V. A. Piddubnyi. – Kyiv: Kondor, 2025. – 320 p.
8. Craft Food Technologies: Development, Research, Engineering: textbook / I. M. Dudarev, O. V. Kuzmin, I. V. Taraimovych. – Kyiv: Oldi+, 2024. – 312 p
9. Occupational Safety in the Field (Food Technologies): textbook / O. V. Voinalovych, Ye. I. Marchyshyna. – Kyiv: Center of Educational Literature, 2022. – 368 p.
10. DSTU ISO 9000-2001. Quality Management Systems. Fundamentals and Vocabulary. – Kyiv: State Standard of Ukraine, 2001.
11. DSTU ISO 9001-2001. Quality Management Systems. Requirements. – Kyiv: State Standard of Ukraine, 2001.
12. DSTU ISO 9004-2001. Quality Management Systems. Guidelines for Performance Improvement. – Kyiv: State Standard of Ukraine, 2001.
13. DSTU ISO 14000-97. Environmental Management Systems. Composition and Description of Elements and Guidelines for Their Application. – Kyiv: State Standard of Ukraine, 1997.
14. ISO 22000:2007. Food Safety Management Systems. Requirements for Any Organization in the Food Chain.
15. DSTU 4161-2003. Food Safety Management Systems. Requirements. – Kyiv: State Committee of Ukraine for Technical Regulation and Consumer Policy, 2003.