

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

Work program (syllabus) of the educational component

**OK 31 Standardization, certification,
quality and safety management
food products**

Specialty	181 "Food Technology"
Educational program	Food technology
Level of higher education	First (bachelor's)

Developer:

Anna HELIKH Ph.D., Assoc. Prof. of the Department of
Food Technologies and Safety
(surname, initials) (academic degree and title, position)

Reviewed and approved at the
meeting of the Department of
Food Technology and Safety
(name of department)

protocol dated 30.05.2025 № 10

Manager
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Maryna SAMILYK
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Agreed:

Guarantor of the educational program

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the educational program is implemented

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Registered in the electronic database: date: 26.06.2026.

Information on reviewing the work program (syllabus):

[illegible]

1. GENERAL INFORMATION ABOUT THE EDUCATIONAL COMPONENT				
1.	Name MC	MC 31 Standardization, certification, quality and safety management of food products		
2.	Faculty/department	Food Technology / Department of Food Technology and Safety		
3.	Status MC	Mandatory		
4.	Program/Specialty (programs), part of which is the MC for (<i>filled in for mandatory MCs</i>)	EP "Food Technologies", 181 Food Technologies		
5.	NRC level	6th Bachelor's		
6.	Semester and duration of study	4th semester, 2nd semester of the s.t., 15 weeks		
7.	Number of ECTS credits	5		
8.	Total hours and their distribution	Contact work (classes)		Independent work
		Lectures 8	Laboratory 16	126
9.	Language of instruction	Ukrainian		
10.	Teacher/Educational Component Coordinator	Ph.D., associate professor Helih A.O.		
11.1	Contact information	Anna Oleksandrivna Helikh, Associate Professor of the Department of Technology and Safety, 317a, e - mail : anna . helikh @ snau . edu . ua		
11.	General description of the educational component	The discipline prepares future specialists to master the terminology of certification in Ukraine and the application of principles, methods, rules and norms of standardization and certification in the management of enterprises and the quality of food products. Students will familiarize themselves with regulatory documents on the acceleration of scientific and technological progress and improvement of the quality of products and services, their types, structure and content. The course also provides an introduction to the structure of bodies and services of standardization, metrology, certification, their functions and tasks; the importance of international standardization and its impact on the development of the country's economy; the system of quality management of products and services based on international quality standards of the ISO 9000 series, as well as economic and legal aspects of standardization, certification and quality management.		
12.	Purpose of the educational component	The purpose of studying the discipline is to form in students a system of knowledge on standardization, certification and quality management of food products, mastering scientific and methodological sources of national standardization and the state metrological system of Ukraine, regulatory and legislative support for production and the sphere of circulation, quality theory and fundamental principles of building and functioning of quality management systems.		
13.	Prerequisites for studying MC, connection with other educational components of EP	1. The educational component is based on the OP "Food Technology" of the first bachelor's level of education: OK 10 Food control methods, 2. The educational component is the basis for the OP “Food technologies" of the first bachelor's level of education: OK17 Fundamentals of scientific research, OK 33 Certification: performance and completion of qualification work		
14.	Academic Integrity Policy	It is not allowed to copy the conclusions of the laboratory work protocols from each other, in such a case the laboratory work will be considered unprotected and will require re-revision. In case of re-revision, the work will not be evaluated for the maximum score .		
15.	Keywords	Standards (DSTU, ISO), certification, HACCP, product quality, quality system		
16.	Course location on the Moodle platform	https :// cdn . snau edu . ua / moodle / course / view . php ? ID = 2667		

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

Learning outcomes in the discipline ¹	Program learning outcomes ²				How is LOD assessed?
	5	11	18	19	
LOD 1. Ability to analyze the structure and functions of the national standardization system of Ukraine, identify and apply various categories of regulatory documents (DSTU, SOU, TU) in the field of food technology.	X				Oral defense of laboratory work Multiple-choice final test (modular assessment) Exam
LOD 2. Ability to apply knowledge of the procedure and schemes for certification of products and services in Ukraine (including the UkrSEPRO system and modern approaches to conformity assessment), interact with conformity assessment bodies, and understand the meaning of the National Conformity Mark.	X				Oral defense of laboratory work Multiple-choice final test (modular assessment) Exam
LOD 3. Ability to integrate knowledge of state regulation of food quality and safety, international approaches (e.g. HACCP, GlobalGAP, WTO Agreements) and quality management principles to ensure product compliance with established requirements and increase its competitiveness.		X			Oral defense of laboratory work Multiple-choice final test (modular assessment) Exam
LIST OF COMPETENCES THAT WILL BE IMPROVED/ACQUIRED IN THE PROCESS OF NON-FORMAL EDUCATION					
Food safety: modern legislation, conscientious producer, responsible consumer					
General: awareness of the social importance of food safety and the formation of a responsible position. Specification in three types: systemic understanding of the problem of product safety, ability to behave responsibly and make decisions, readiness for proactive civic participation in this area. Professional: possession of a system of knowledge of modern legislation and food safety standards; understanding of the principles of conscientious production and the role of a responsible consumer; ability to analyze risks and communicate effectively in the field of food safety.				Form for confirming learning results: A certificate of successful completion of training with the number of hours. The authenticity of the certificate can be verified by using the link on it.	

¹The list that is given in the work program under "to know, to be able to".

When defining the DRL in the work program, you can not highlight "know, be able to", but give a general list.

²indicate the PRN numbers as they are given in the OP.

MANDATORY! The PNRs listed in the appendix must match the "+" ones listed in the PNR and OK correspondence matrix of the educational program.

3. CONTENT OF THE EDUCATIONAL COMPONENT (COURSE PROGRAM)

Topic. List of issues to be addressed within the topic	Distribution within the overall time budget		Recommended literature	
	Classroom work			CRC
	Luke	LB.		
Module 1 :				
Lecture 1. Introduction. Standardization as the basis for ensuring product quality and safety 1. The role of standardization in a market economy. 2. Key concepts: standard, technical regulation, conformity assessment. 3. The purpose and objectives of standardization in the food industry.	2			[1,4-9, 18,20,23,27,28]
Laboratory work 1. Analysis of key terminology in the field of standardization and quality		2		[1,4-9, 18,20,23,27,28]
Independent work No. 1. Topic 1. European standardization organizations and their influence on Ukraine 1. General characteristics of the European standardization system. 2. Activities and key standards of the European Committee for Standardization (CEN). 3. Activities and key standards of the European Committee for Electrotechnical Standardization (CENELEC).			6	[1,4-9, 18,20,23,27,28]
Lecture 2. Theoretical foundations of standardization 1. Objects, purpose and principles of standardization. 2. Functions of standardization: informational, communicative, resource-saving. 3. Standardization methods: unification, typification, aggregation.	2			[1,4-9, 23,27,26]
Laboratory work 2. Study of structure and fundamental standards		2		[1,4-9, 23,27,26]
Independent work No. 2. Topic. International agro-industrial standards (Codex Alimentarius, UNECE) Plan: 1. The Codex Alimentarius Commission and its role in food safety. 2. UNECE standards for agricultural products. 3. Interstate Council for Standardization (EASC) and its activities.			6	[1,4-9, 7,26,28]
Lecture 3. National standardization system of Ukraine 1. Structure of the national standardization system: key bodies and their powers. 2. Types of regulatory documents in Ukraine (DSTU, TU, SOU) and their scope of application. 3. State market supervision over compliance with the requirements of technical regulations.				[1,2,3, 4-9, 10,12,14,15,16,1819, 1,23,27,26,28]
Laboratory work 3. Workshop on searching and analyzing current regulatory documents (RD).		2		[1,2,3,4-9, 12,14,15,16,1819]

Independent work No. 3. Topic. The role of specialized international organizations in standardization (IFOAM, IDF) Plan: 1. IFOAM and organic production standards. 2. International Dairy Federation (IDF) and its standards. 3. CORESTA's activities in tobacco standardization. 4. International Seed Testing Association (ISTA) and seed testing standards. 5. The role of UNECE in the development of quality standards.			6	[1,4-9, 7,26,28]
Lecture 4. Development and application of regulatory documents 1. Stages of development of national standards: from planning to approval. 2. Rules for the construction, presentation and design of standards. 3. Implementation of standards at the enterprise and assessment of their effectiveness.				[1,4-9, 23,27,26]
Laboratory work 4. Modeling the stages of the life cycle of an enterprise standard (ETS).		2		[1,4-9, 23,27,26]
Independent work No. 4. Topic. Standardization in winemaking, juice and sugar production Plan: 1. Standards of the International Organization of Vine and Wine (OIV). 2. International Federation of Fruit Juice Producers (IFU) standards. 3. Sugar analysis methods according to ICUMSA standards. 4. The role of ICID in irrigation standardization. 5. IPPC phytosanitary standards.			6	[1,4-9, 23,27,26]
Lecture 5. International and regional standardization organizations 1. International Organization for Standardization (ISO): structure, goals and areas of activity. 2. European standardization organizations (CEN, CENELEC, ETSI) and their role in harmonization. 3. Cooperation of Ukraine with international and regional organizations.				[1,4-9, 23,27,26]
Laboratory work 5. Comparative analysis of ISO 9001 and ISO 10000 standards.				[1,2,3, 10, 18,19, 20,21,23,27,26,28]
Independent work No. 5. Topic. Overview of national standardization systems of leading countries of the world (USA, Germany, Japan) Plan: 1. American National Standards Institute (ANSI) and its model. 2. The German Institute for Standardization (DIN) and its role in the EU. 3. Japan Industrial Standards Committee (JISC). 4. British Standards Institute (BSI). 5. French Association for Standardization (AFNOR). 6. Comparative analysis of standardization models.			8	[1,4-9, 7,26,28]

Lecture 6. Conformity assessment and its role in international trade 1. The concept of conformity assessment, its forms and methods. 2. Declaration and certification as the main procedures for confirming conformity. 3. Mutual Recognition Agreements (MRAs).				[1,2,3, 4-9, 10,12,14,15,16,18,19, 20,21]
Laboratory work 6. Research into product certification schemes in the EU and the USA.				[1,2,3, 4-9, 10,12,14,15,16,18,19, 20,21]
Independent work No. 6. Topic: Analysis of the Law of Ukraine “On Technical Regulations and Conformity Assessment”. Plan: 1. Scope and main terms of the Law. 2. Requirements for the development and application of technical regulations. 3. Conformity assessment modules defined in the Law. 4. Designation of conformity assessment bodies.			8	[1,4-9, 23,27,26]
Lecture 7. Product identification and traceability: bar coding 1. The role of automatic identification in modern logistics chains. 2. Barcode structure and standards (EAN, UPC, Code 128). 3. Implementation of traceability systems based on bar coding.				[1,4-9, 7,26,28]
Laboratory work 7. Workshop on identifying goods by EAN barcodes.				[1,4-9, 7,26,28]
Independent work No. 7. Topic: The role of the National Accreditation Agency of Ukraine (NAAU). Plan: 1. Tasks and functions of the NAAU. 2. CAB accreditation procedure. 3. Requirements for testing laboratories (DSTU EN ISO/IEC 17025). 4. Requirements for product certification bodies (DSTU EN ISO/IEC 17065). 5. Requirements for management system certification bodies. 6. Supervision of the activities of accredited CABs. 7. International recognition of NAAU (EA, IAF, ILAC). 8. Register of accredited CABs.			6	[1,4-9, 7,26,28]
Total for module 1:	4	8	46	

Module 2:				
Lecture 8. Quality management systems. International standard ISO 9001 1. Principles of quality management. 2. Structure and requirements of the ISO 9001 standard. 3. Process approach in quality management. 4. Quality management system documentation.	2			[1,4-9, 18,20,23,27,28]
Laboratory work 8. Development of strategic documentation for the QMS: Quality Policy and Objectives.		2		[1,4-9, 18,20,23,27,28]
Laboratory work 9. Development of QMS operational documentation: Procedures, instructions and record forms.		2		[1,4-9, 18,20,23,27,28]
Independent work No. 8. Topic: Research on conformity assessment modules used in Ukraine. Plan: 1. Classification of conformity assessment modules (AH). 2. Modules based on internal production control. 3. Modules that provide for type examination. 4. Modules based on production quality assurance. 5. Modules based on product quality assurance. 6. Modules based on product inspection. 7. Full quality assurance modules. 8. Combinations of modules for different types of products. 9. Practical examples of using modules.			10	[1,4-9, 18,20,23,27,28]
Lecture 9. Food safety management systems. ISO 22000 standard 1. Relationship between HACCP and ISO 22000. 2. Key elements of ISO 22000: interactive communication, system management, prerequisite programs (PRPs) and HACCP principles. 3. Stages of implementing the ISO 22000 system.	2			[1,4-9, 18,20,21,23,27,26,28]
Laboratory work 10. Identification of prerequisite programs related to infrastructure and production environment (facility planning, utilities, equipment).		2		[1,4-9, 18,20,21,23,27,26,28]
Laboratory work 11. Identification of prerequisite programs related to operational processes and personnel hygiene (sanitation, pest control, prevention of cross-contamination).		2		[1,4-9, 18,20,21,23,27,26,28]
Independent work No. 9. Topic: Procedure for recognizing foreign certificates of conformity. Plan: 1. Legislative basis for recognition of conformity assessment results. 2. Conditions and criteria for recognition of foreign certificates. 3. The role of mutual recognition agreements (MRAs). 4. Procedure for submitting documents for recognition. 5. Examples of recognition of certificates for different types of products.			10	[1,4-9, 18,20,21,23,27,26,28]

Lecture 10. Internal and external audit of quality and safety management systems 1. Objectives and types of audits (internal, external, certification). 2. Planning and conducting an audit. 3. The role and responsibility of the auditor. 4. Documenting audit results and corrective actions.				[1,4-9, 23,27,26]
Laboratory work 12. Compilation of a checklist for auditing the processes of management and provision of the QMS (based on sections 4, 5, 6, 7 of the ISO 9001 standard).				[1,4-9, 23,27,26]
Laboratory work 13. Compilation of a checklist for auditing operational processes and QMS improvement processes (based on sections 8, 9, 10 of the ISO 9001 standard).				[1,4-9, 23,27,26]
Independent work No. 10. Topic: Features of certification of hospitality and tourism services. Plan: 1. Regulatory framework for certification of services in Ukraine. 2. Criteria for assessing the quality of hotel services (hotel categorization). 3. Requirements for certification of tourism services. 4. Voluntary certification in the hospitality industry.			10	[1,4-9, 23,27,26]
Lecture 11: Evolution of quality management concepts 1. From quality control to total quality management (TQM). 2. Philosophy of leading quality gurus: Deming, Juran, Ishikawa. 3. Modern models of business excellence (EFQM).				[1,4-9, 23,27,26]
Laboratory work 14. Prioritizing quality problems using a Pareto chart.				[1,4-9, 18,20,23,27,28]
Laboratory work 15. Root cause analysis of problems using an Ishikawa cause-and-effect diagram.				[1,4-9, 18,20,23,27,28]
Independent work No. 11. Topic: Environmental management and ISO 14000 series standards. Plan: 1. Principles of the Environmental Management System (EMS). 2. Structure and requirements of the ISO 14001 standard. 3. Environmental audit and its types. 4. Integration of ISO 14001 with other management systems.			10	[1,4-9, 23,27,26]
Lecture 12: Legislative regulation of food safety in Ukraine and the EU. 1. Law of Ukraine "On Basic Principles and Requirements for the Safety and Quality of Food Products". 2. Hygienic requirements for the production and circulation of food products. 3. Principles of "General Food Law" in the European Union and their harmonization in Ukraine.				[1,4-9, 23,27,26]

Laboratory work 16. Analysis of mandatory information on food labeling in accordance with current legislation.				[1,4-9, 23,27,26]
Laboratory work 17. Analysis of special labeling requirements: nutritional claims, health benefits, and allergen labeling.				[1,4-9, 23,27,26]
Independent work No. 12. Topic: The role of WTO agreements (TBT and SPS) in international food trade. Plan: 1. Agreement on Technical Barriers to Trade (TBT) and its main provisions. 2. Agreement on the Application of Sanitary and Phytosanitary Measures (SPS). 3. The concept of "scientific justification" in the SPS Agreement. 4. The impact of TBT and SPS agreements on Ukrainian legislation.			10	[1,4-9, 23,27,26]
Lecture 13. Specifics of quality management in the service sector 1. Characteristics of services (intangibility, inseparability, variability) and their impact on quality. 2. SERVQUAL model for assessing service quality. 3. Managing "moments of truth" in interaction with the consumer.				[1,4-9, 23,27,26]
Laboratory work 18. Conducting an analysis of hazardous factors for a food product (HACCP Principle 1).				[1,4-9, 23,27,26]
Laboratory work 19. Determination of critical control points (CCPs) using a "decision tree" (HACCP Principle 2).				[1,4-9, 23,27,26]
Independent work No. 13. Topic: Implementation of integrated management systems at the enterprise. Plan: 1. Benefits and challenges of integrating management systems. 2. Integration models (ISO 9001, ISO 14001, ISO 45001, ISO 22000). 3. Stages of development and implementation of an integrated system. 4. Conducting an integrated audit.			10	[1,4-9, 23,27,26]
Lecture 14. Qualimetry: Quantitative Assessment of Quality 1. Subject and objectives of qualimetry. 2. Classification of product quality indicators. 3. Methods for calculating a comprehensive quality indicator.				[1,4-9, 23,27,26]
Laboratory work 20. Construction and analysis of control charts for quantitative data (mean and range charts, X-bar & R).				[1,4-9, 23,27,26]
Laboratory work 21. Construction and analysis of control charts for alternative data (defective units fraction charts, p-charts).				[1,4-9, 23,27,26]

Independent work No. 14. Topic: Practical application of qualimetric assessment methods. Plan: 1. Selection of a range of quality indicators for a specific product. 2. Calculation of single and complex quality indicators.			10	[1,4-9, 23,27,26]
Lecture 15. International food safety standards: GlobalG.AP and others 1. The essence and objectives of the GlobalG.AP standard 2. Requirements for agricultural producers to obtain a GlobalG.AP certificate 3. Other safety standards in global trade (e.g., BRC, IFS).				[1,4-9, 23,27,26]
Laboratory work 22. Construction of Torgets control charts for process monitoring.				[1,4-9, 23,27,26]
Independent work No. 15. Topic: Development of a methodology for comprehensive quality assessment for a selected product. Plan: 1. Stages of developing a methodology: from goal definition to testing.			10	[1,4-9, 23,27,26]
Total for module 2	4	8	80	
Non-formal education (Prometheus)				
Food safety: modern legislation, conscientious producer, responsible consumer Course program: This course is dedicated to the development, implementation and maintenance of procedures based on the principles of the Hazard Analysis and Critical Control Points (HACCP) system. You will learn about modern food production and circulation through the review and analysis of best international practices. Hazard Analysis Critical Control Points (HACCP) is an internationally recognized method for identifying and managing risks associated with food safety. HACCP is a management system in which food safety is achieved through the analysis and control of hazardous factors of chemical, microbiological and physical origin, from raw materials to the circulation and consumption of finished products.	5			https://prometheus.org.ua/prometheus-free/food-safety-law/
Total	8	16	126	

4. TEACHING AND LEARNING METHODS

<u>LOD</u>	Teaching methods (work that will be carried out by the teacher <u>during classroom lessons</u> , consultations)	Number of hours	Teaching methods (what types of learning activities should <u>the student perform independently</u>)	Number of hours
<u>LOD 1.</u> Ability to analyze the structure and functions of the national standardization system of Ukraine, identify and apply various categories of regulatory documents (DSTU, SOU, TU) in the field of food technology.	Problem lectures (questions are raised regarding the material covered by the teacher, but the lecturer answers them himself, to focus students' attention on the main point) Presentations (demonstration of information on the topic of lectures)	2	Laboratory classes (performing tasks according to methodological instructions) Brainstorming while doing lab work Individual tasks (independent processing of the information proposed by the teacher)	40
<u>LOD 2.</u> Ability to apply knowledge of the procedure and schemes for certification of products and services in Ukraine (including the UkrSEPRO system and modern approaches to conformity assessment), interact with conformity assessment bodies, and understand the meaning of the National Conformity Mark.	Problem lectures (questions are raised regarding the material covered by the teacher, but the lecturer answers them himself, to focus students' attention on the main point) Presentations (demonstration of information on the topic of lectures)	4	Laboratory classes (performing tasks according to methodological instructions) Brainstorming while doing lab work Individual tasks (independent processing of the information proposed by the teacher)	40
<u>LOD 3.</u> Ability to integrate knowledge of state regulation of food quality and safety, international approaches (e.g. HACCP, GlobalGAP, WTO Agreements), and quality management principles to ensure that products meet established requirements.	Problem lectures (questions are raised regarding the material covered by the teacher, but the lecturer answers them himself, to focus students' attention on the main point) Presentations (demonstration of information on the topic of lectures)	2	Laboratory classes (performing tasks according to methodological instructions) Brainstorming while doing lab work Individual tasks (independent processing of the information proposed by the teacher)	46

5. EVALUATION BY EDUCATIONAL COMPONENT

5.1.Diagnostic assessment (indicated as needed)

5.2.Summative assessment

5.2.1. To assess the expected learning outcomes, there are

No.	Summative assessment methods	Points / Weight in the overall score	Date of compilation
	Module 1 (35 points):		
1	Oral defense of laboratory works (7 works, 2 points each)	14 points / 14 %	within 5 days after class
2	Midterm testing (multiple choice test)	21 points / 21%	Week 7
	Module 2 (35 points):		
3	Oral defense of laboratory works (15 works, 1 point each)	30 points / 30 %	within 5 days after class
4	Midterm testing (multiple choice test)	5 points / 5%	Week 15
5	Exam – multiple choice test	30 / 30%	Week 15

5.2.2. Evaluation criteria

Component	Unsatisfactorily	Satisfactorily	Good	Perfectly
<i>(For the 1st laboratory work)</i>	<i>< 0 points</i>	<i>0.5 points</i>	<i>1 point</i>	<i>2 points</i>
	<i>Task requirements not met</i>	<i>Most requirements are met, but individual components are missing or insufficiently disclosed, there is no analysis of other approaches to the issue</i>	<i>All task requirements met</i>	<i>Fulfilled all the requirements of the task, demonstrated creativity, thoughtfulness, proposed their own solution to the problem</i>
Module 1 (35 points)				
Oral defense of laboratory work	<i>7 laboratory works, 2 points each (if completed – 14 points in total)</i>			
Midterm testing (multiple choice test)	<i>The test includes 21 questions, each of which is worth 1 point.</i>			
Module 2 35 (points)				
Oral defense of laboratory work	<i>15 laboratory works, 2 points each (if completed – 30 points in total)</i>			
Midterm testing (multiple choice test)	<i>The test includes 5 questions, each of which is worth 1 point.</i>			
Exam	<i>30 test questions, each worth 1 point</i>			

5.3. Formative assessment:

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

No.	Elements of formative assessment	Date
1	Oral survey after studying all topics, during laboratory classes	within 5 days after class
2	Feedback in the form of a discussion of the final testing	7, 15 weeks
3	Feedback in the form of a discussion of an individual assignment (presentation)	up to 15 weeks
4	Feedback in the form of a discussion of exam testing	Week 15

6. LEARNING RESOURCES (LITERATURE)

Methodical

1. **Standardization, certification and quality management of food products. A textbook** for students of the OPP "Food Technologies" of full-time and part-time forms of education for the degree of higher education "Bachelor" / compiled by A.O. Gelikh, S.O. Guba - Sumy: SNAU, 2025. - 340 p.

2. **Gelikh A.O.** Standardization, certification, quality and safety management of food products. Course of lectures for bachelor's students of specialty 181 "Food Technologies" of full-time and part-time forms of study // Sumy: SNAU, 2024, 97 p.

3. **Gelikh A.O.** Standardization, certification, quality and safety management of food products. Methodological recommendations for performing laboratory work for bachelor's students of specialty 181 "Food Technologies" of full-time and part-time forms of study // Sumy: SNAU, 2024, 67 p.

4. **Gelikh A.O.** Standardization, certification, quality and safety management of food products. Methodological recommendations for performing independent work for bachelor's students of specialty 181 "Food Technologies" of full-time and part-time forms of study // Sumy: SNAU, 2024, 82 p.

Basic

5. Pumpkin protein. Technical conditions. TU U 10.8-04718013-006:2022
6. Pumpkin Seed Meal Cookies . Q/YTBG -0001 S-202 2 .
7. Pumpkin Seed Protein Isolate Sausage . Q/ YTBG - 0002 S - 202 2
8. Pumpkin Seed Protein Isolate Cookies . Q/YTBG -0004 S-202 2
9. Chicken sausage s fortified with beetroot powder . Q/YTBG-0005S-2023
10. Tough biscuits fortified with beetroot powder . Q / YTBG -0004 S -2023
11. Dried beetroot. Technical conditions. TU U 10.8-04718013 -007:2022.
12. Concentrated and dried taro products . Technical conditions. TU U 10.3-04718013-008:2022. DSTU
13. National standardization. Development rules. Work programs for national standardization. Kyiv, 2023. 25 p. [Valid from 2023-01-01]. Kyiv. (Information and documentation).
14. DSTU 3410-2023 UkrSEPRO certification system. Basic provisions.
15. DSTU 3411-2023 UkrSEPRO certification system. Requirements for product certification bodies and the procedure for their accreditation.
16. DSTU EN ISO/IEC 17065:202 3 Conformity assessment. Requirements for bodies for the certification of products, processes and services (EN ISO/IEC 17065:2023, IDT; ISO/IEC 17065:2023, IDT). Kyiv, 2023. 27 p. [Valid from 2021-01-01]. Kyiv. (Information and documentation).

17. DSTU 3414-2023 UkrSEPRO certification system. Production certification. Procedure for implementation.
18. DSTU 3415-2023 UkrSEPRO certification system. System Register.
19. DSTU 3416-2023 UkrSEPRO certification system. Procedure for registration of voluntary certification objects.
20. DSTU 3417-2023 UkrSEPRO certification system. Procedure for recognizing certification of imported products.
21. DSTU 3418-2023 UkrSEPRO certification system. Requirements for auditors and the procedure for their certification.
22. DSTU 3419-2023 UkrSEPRO certification system. Quality system certification, Procedure.
23. Bal-Prylypko L. V., Slobodyanyuk N. M., Polishchuk G. E., Paska M. Z., Burak V. E. Standardization, metrology, certification and quality management: textbook. Kyiv: Komprint, 2022. 571 p.
24. Berzina S. V., Yareskovska I. I. et al. Environmental management systems: modern trends and international standards: manual. Kyiv: Institute of Environmental Management and Balanced Resource Management, 2022. 134 p.
25. Bondarenko G. G., Kosach N. I., Siroklin V. P. and others. Certification and audit: a textbook. Kharkiv: Khai, 2022. 120 p.
26. Dubinina A. A., Selyutina G. A., Lenert S. O., Selyutin V. M. Certification of goods: educational manual. Kh.: KhDUKHT, 2023. 285 p.
27. Strikha L. O., Nazarenko I. V., Groza V. I. Standardization of products and services: a course of lectures. Mykolaiv: MNAU, 2023. 80 p.
28. Topolnik V.G., Kotlyar M.A. Metrology, standardization, certification and quality management: Textbook. Lviv: "Magnolia 2023". 2023. P. 212.
29. Kochubei-Lytvynenko O.V. Quality and safety management of dairy and milk-containing products. Kyiv: NUKHT. 2023. 91 p.

14. Information resources

<https://cdn.snau.edu.ua/moodle/course/view.php?id=2667>

