

**PROJECT**

**\MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE  
SUMY NATIONAL AGRARIAN UNIVERSITY**

**EDUCATIONAL AND VOCATIONAL PROGRAM  
"FOOD TECHNOLOGIES"**

**HIGHER EDUCATION LEVEL** first (bachelor's) level  
(name of higher education level)

**HIGHER EDUCATION DEGREE** Bachelor  
(name of higher education degree)

**KNOWLEDGE BRANCH** G Engineering, Manufacturing and Construction  
(code and name of the field of knowledge)

**SPECIALTY** G 13 Food Technology  
(code and name of specialty)

**"WITH A VERGE"**

Academic Council of Sumy National University of  
Science and Technology

" \_\_\_\_\_ " \_\_\_\_\_ 2026

(Protocol No. \_\_\_\_\_)

**Chairman** \_\_\_\_\_ **of** \_\_\_\_\_ **the** **Academic**  
**Council** \_\_\_\_\_ **Volodymyr LADYKA**

The educational and scientific program is put into  
effect from

" \_\_\_\_\_ " \_\_\_\_\_ 2026

**Rector** \_\_\_\_\_ **Ihor KOVALENKO**

(order No. \_\_\_\_\_ of " \_\_\_\_\_ " \_\_\_\_\_ 2026)

**Sumy 2026**

LETTER OF AGREEMENT  
EPP "Food Technologies" HED "Bachelor"

**Guarantor of the educational and professional program**

Doctor of Science, Associate Professor of the  
Department of Food Technology

Olena KOSHEL

**Project team members:**

Ph.D., Associate Professor, Head of the  
Department of Food Technology

Oksana MELNYK

Candidate of Technical Sciences, Associate  
Professor of the Department of Food  
Technology

Maryna SAVCHENKO

Ph.D., Associate Professor, Department of Food  
Technology and Safety

Serhii SABADASH

Candidate of Sciences, Associate Professor of  
the Department of Food Technology and Safety,  
Dean of the Faculty of Food Technology

Nataliia BOLHOVA

Ph.D., Associate Professor, Department of Food  
Technology and Safety

Anna HELIKH

first (bachelor's) level higher education student

Danylo TODERIUK

Considered and approved at an extended meeting of the Department of Food Technology with the participation of student activists and stakeholders (minutes No. \_\_\_\_\_ dated \_\_\_\_\_2026).

Approved at the meeting of the Academic Council of the Faculty of Food Technology (minutes No. \_\_\_\_\_ dated \_\_\_\_\_2026).

Head of the Faculty Academic Council  
Food Technology, Candidate of Agricultural  
Sciences, Associate Professor

Nataliia BOLHOVA

**AGREE:**

Head of the Education Quality Department,  
licensing and accreditation, PhD in Economics,  
Associate Professor

Olena RYBINA

Head of the educational department  
Department, Candidate of Economic Sciences,  
Associate Professor

Nataliia KOLODNENKO

Vice-Rector for Scientific and Pedagogical Affairs  
and educational work of SNAU

Margarita LYSHENKO

## **PREFACE**

The educational and professional program for the training of higher education applicants at the first (bachelor's) level in the specialty "Food Technologies" contains 240 ECTS credits, necessary for obtaining the corresponding higher education degree, a list of graduate competencies; normative content of the training of higher education applicants, formulated in terms of learning outcomes; forms of certification of higher education applicants.

Standard of higher education of Ukraine for obtaining a higher education degree “Bachelor” at the first (bachelor) level of higher education in the field of knowledge G Engineering, production and construction , specialties G 13 Food technologies were developed in accordance with the Law of Ukraine dated 01.07.2014 No. 1556-VII “On Higher Education”, resolutions of the Cabinet of Ministers of Ukraine dated 23.11.2011 No. 1341 “On Approval of the National Qualifications Framework”, dated 29.04.2015 No. 266 “On Approval of the List of Fields of Knowledge and Specialties for Training of Higher Education Applicants”, the National Classifier of Ukraine “Classifier of Professions” DK 003:2010, approved by order of the State Committee for Consumer Protection and Standardization of Ukraine dated 28.07.2010 No. 237 (as amended) taking into account the Methodological Recommendations for the Development of Higher Education Standards (Order of the Ministry of Education and Science of Ukraine dated 01.06.2016 No. 600 as amended by the order of the Ministry of Education and Science of Ukraine dated April 30, 2020 No. 584).

## CONTENT

1. Profile of the educational and professional program "Food Technologies " in the specialty G13 "Food Technologies" .....	5
2. List of components of the educational and professional program and their logical sequence .....	13
2.1 List of EPP components .....	13
2.2 Structural and logical diagram of the educational and professional program ....	
3. Certification form for higher education applicants .....	16
4. Matrix of correspondence of program competencies to components of the educational and professional program .....	17
5. Matrix of ensuring program learning outcomes (PLO) by the corresponding components of the educational and professional program .....	18
List of regulatory documents on which EPP .....	19

# 1. Profile of the educational and professional program "Food Technologies " in the specialty G 13 "Food Technologies"

1 - General information	
Full name of higher education institution and structural unit	Sumy National Agrarian University Faculty of Food Technology
Level of higher education	First (bachelor's) level
Higher education degree	Bachelor
Discipline	G Engineering, Manufacturing and Construction
Specialty	G13 "Food Technologies"
Form of study	full-time, part-time
Restrictions on forms of education	No restrictions
Educational qualification	Bachelor of Food Technology
Qualification in diploma	Higher education degree – Bachelor Specialty – G13 “Food Technology” Educational and professional program – “Food Technology”
Type of diploma and scope of educational and professional program	Bachelor's degree, single, 240 ECTS credits, study period 3 years 10 months Bachelor's degree, single, 180 ECTS credits, study period 2 years 10 months based on the degree of a professional junior bachelor, a junior bachelor's degree (OKR of a junior specialist). The uniqueness of the OPP is 50 ECTS credits
Availability of accreditation	Accredited. (Accreditation Certificate No. 413 valid until 01.07.2026)
Cycle/level	HQF of Ukraine – level 6, FQ-EHEA – first cycle, EQF-LLL – level 6
Prerequisites	Availability of complete general secondary education, junior bachelor's degree, professional junior bachelor's degree
Language of instruction	Ukrainian, english
Duration of the educational and professional program	By 2029
Internet address for permanent posting of the description of the	<a href="https://snau.edu.ua/viddil-zabezpechennya-yakosti-osviti/zabezpechennya-yakosti-osviti/osvitni-programi/2025-rik/">https://snau.edu.ua/viddil-zabezpechennya-yakosti-osviti/zabezpechennya-yakosti-osviti/osvitni-programi/2025-rik/</a>

educational and professional program	
<b>2 – Purpose of the educational and professional program</b>	
Training a competitive, knowledgeable and socially responsible specialist in food production by combining modern teaching methods and scientific research in accordance with the needs of the agro-industrial sector of Ukraine and the state as a whole, capable of organizing and developing innovations in the field of production, managing the quality and safety of food products on the basis of sustainable development, rational use of resources, minimizing negative impact on the environment and ensuring food security, as well as conducting research to form the basis for further education in higher education institutions.	
<b>3 – Characteristics of the educational and professional program</b>	
Description of the subject area	<p><i>Object</i> : technological processes and food products. <i>Learning objective</i> : formation of competencies in higher education students necessary for professional activity in the field of production and management of quality and safety of food products.</p> <p><i>Theoretical content of the subject area</i> : basic concepts and principles of design and operation of food industry enterprises and restaurant establishments, food quality and safety management system, essence and parameters of technological processes of food production, principles of developing new and improving existing food technologies, rules for applying the current legislative and regulatory framework, and a system for analyzing marketing activities in production conditions.</p> <p><i>Methods, techniques and technologies that a higher education graduate must master for practical application</i> : a set of organizational and technological measures to improve the efficiency of the functioning of enterprises and institutions of the food industry, methods and techniques for controlling the quality and safety of food products, planning and calculating the need for material, financial and labor resources.</p> <p><i>Tools and equipment</i>: modern technological and laboratory equipment and devices, computer technology and software.</p>
Orientation of the educational and professional program	Educational and professional. Based on modern scientific and practical knowledge in the field of food technologies. The program is focused on training a competitive specialist to increase the efficiency of the functioning of food industry enterprises and restaurant establishments, who possess the methodology for ensuring quality control and food safety, planning and calculating the need for material, financial and labor resources, soft skills, applied software, and have a sufficient level of responsibility for the restoration and enrichment of the country's future.

The main focus of the educational and professional program and specialization	<p>Special education in the field of food technology, training of specialists in the field of food technology and food production technologies.</p> <p>The educational and professional program "Food Technologies" provides training for specialists who are able to apply innovative approaches to modeling technological processes in food enterprises and restaurant establishments, which contributes to their rapid adaptation to production conditions and changes in the market environment. When studying the program, specialists learn to implement rational methods of organizing the production of restaurant products.</p> <p>Keywords: food production, food industry enterprises, restaurant enterprises, innovative technologies, food product quality management, competitiveness.</p>
Program features	The bachelor's educational and professional program provides the acquisition of in-depth knowledge and a critical approach to the organization and control of food production, through making effective professional decisions, solving current tasks and problems of the industry.
<b>4 – Graduates' employability and further education</b>	
Eligibility for employment	<p>A Bachelor of Food Technology has a high level of practical training, special knowledge, in-depth specialized professional training and can hold positions performing the functions of a food technology specialist in institutions and enterprises of various industries and organizational and legal forms according to DK 003:2010:</p> <p>2149 Other engineering professionals</p> <p>2433 Information and information analysis professionals</p> <p>2462 Restaurant Professional</p> <p>31 Technical specialists in applied sciences and engineering</p> <p>3340 Other education professionals</p> <p>343 Management Technicians</p> <p>3436 Executive assistants</p> <p>3436.1 Assistants to managers of enterprises, institutions and organizations</p> <p>3436.2 Assistant managers of production and other major divisions</p> <p>3436.3 Assistant managers of small enterprises without management staff</p> <p>3439 Other management technicians</p> <p>3491 Laboratory technicians and technicians in other scientific research fields</p> <p>3530 Dairy production professionals</p> <p>3540 Meat processing specialists</p>

	3570 Food technology specialists 3590 Other food and processing industry professionals
Further training	Studying under the second (master's) level of higher education. Obtaining additional qualifications in the postgraduate education system.
<b>5 – Teaching and assessment</b>	
Teaching and learning	Student-centered problem-oriented learning. Classes are held in the form of lectures, laboratory, practical classes, consultations, and independent study. Lectures are interactive and cognitive in nature. Practical and laboratory classes are held using common methods (situational tasks, business games, preparation of presentations using modern professional software). Educational and methodological support and consulting for independent work are carried out through the university information and educational environment Moodle.
Evaluation	The system of assessing the knowledge of higher education applicants according to the educational components of the educational and professional program is implemented in accordance with the requirements of the "Regulations on the Organization of the Educational Process at Sumy NAU". Summative and formative assessment are used for assessment in the educational program. Types of control: current, intermediate, final, self-control. Current control of students' knowledge is carried out orally (survey based on the results of the studied material). Final control of knowledge in the form of an exam/test/differentiated test. Forms of control: oral and written survey, test tasks using a computer, defense of practical, laboratory and individual works. Assessment of students' activities is carried out on the basis of quantitative and qualitative indicators that characterize participation in conferences, preparation of individual parts of the qualification work in accordance with the approved individual plan. Assessment of academic achievements is carried out on a 4-point national scale ("excellent", "good", "satisfactory" and "unsatisfactory"); a 2-level verbal national scale ("passed" and "failed") and a 100-point scale. The final result of a student's education is certification and awarding him a bachelor's degree in food technology.
<b>6 – Software competencies</b>	
Integral competence	The ability to solve complex specialized tasks and practical problems of a technical and technological nature, characterized by the complexity and uncertainty of conditions in the production conditions of food industry and restaurant enterprises, as well as in the learning process, which involves the application of theoretical foundations and methods of food technologies.



General competence	<p>C01. Knowledge and understanding of the subject area and professional activity.</p> <p>C02. Ability to learn and master modern knowledge.</p> <p>C03. Ability to show initiative and entrepreneurship.</p> <p>C04. Skills in using information and communication technologies.</p> <p>C05. Ability to search and analyze information from various sources.</p> <p>C06. Ability to evaluate and ensure the quality of work performed.</p> <p>C07. Ability to work in a team.</p> <p>C08. Ability to work autonomously.</p> <p>C09. Skills for performing safe activities.</p> <p>C10. The desire to preserve the environment.</p> <p>C11. Ability to communicate in the state language both orally and in writing.</p> <p>C12. Ability to communicate in a foreign language.</p> <p>C13. The ability to exercise one's rights and responsibilities as a member of society, to be aware of the values of civil society and the need for its sustainable development, the rule of law, and the rights and freedoms of man and citizen in Ukraine.</p> <p>C14. The ability to preserve and multiply moral, cultural, scientific values and achievements of society based on understanding the history and patterns of development of the subject area, its place in the general system of knowledge about nature and society and in the development of society, technology and engineering, to use various types and forms of physical activity to ensure a healthy lifestyle.</p> <p>C15. Ability to make decisions and act in accordance with the principle of non-acceptance of corruption and any other manifestations of dishonesty.</p> <p>C16. Ability to use modern digital tools and technologies, create digital content, protect information in professional activities.</p> <p>C17. Ability to self-development, maintain one's own physical and mental health, participate in public life</p>
Professional competencies of the specialty	<p>C18. Ability to implement food technology in production based on understanding the essence of the transformations of the main components of food raw materials during the technological process.</p> <p>C19. Ability to manage technological processes using technical, information and software.</p> <p>C20. Ability to organize and conduct quality and safety control of raw materials, semi-finished products and food products using modern methods.</p> <p>C21. Ability to ensure product quality and safety based on relevant standards and within the framework of food safety management systems during their production and sale.</p>

	<p>C22. Ability to develop new and improve existing food technologies taking into account the principles of rational nutrition, resource saving and intensification of technological processes.</p> <p>C23. Ability to prepare business documentation and conduct technological and economic calculations.</p> <p>C24. Ability to select and operate technological equipment, to draw up equipment and technological schemes for the production of food products.</p> <p>C25. Ability to conduct research in specialized laboratories to solve applied problems.</p> <p>C26. Ability to design new or modernize existing production facilities (production areas).</p> <p>C27. Ability to develop draft regulatory documentation using the current legislative framework and reference materials.</p> <p>C28. Ability to develop and implement effective methods of work organization, to be responsible for the professional development of individuals and/or groups of individuals.</p> <p>C29. Ability to form a communication strategy in the field of food technology, to conduct a professional discussion.</p> <p>C30. Ability to increase production efficiency, implement modern management systems.</p> <p>C31. Ability to organize the technological process of producing restaurant products.</p>
<b>7 — Program Learning Outcomes (PLOs)</b>	
Learning outcomes	<p>PLO1. Know and understand the basic concepts, theoretical and practical problems in the field of food technology.</p> <p>PLO2. Demonstrate creative initiative and improve one's professional level through continuing education and self-education.</p> <p>PLO3. Be able to apply information and communication technologies to provide information for professional activities and conduct applied research.</p> <p>PLO4. Search and process scientific and technical information from various sources and apply it to solve specific technical and technological problems.</p> <p>PLO5. Know the scientific foundations of technological processes in food production and the laws of physicochemical, biochemical and microbiological transformations of the main components of food raw materials during technological processing.</p> <p>PLO6. Know and understand the main factors influencing the course of the synthesis and metabolism of food components and the role of nutrients in human nutrition.</p> <p>PLO7. Organize, control and manage technological processes for processing food raw materials into food products, including using technical means of automation and control systems.</p>

PLO8. Be able to develop or improve technologies for food products with increased nutritional value, taking into account global trends in the industry.

PLO9. Be able to develop draft technical specifications and technological instructions for food products.

PLO10. Implement food quality and safety management systems.

PLO11. Determine the compliance of quality indicators of raw materials, semi-finished products and finished products with regulatory requirements using modern methods of analysis (or control).

PLO12. Be able to design new and modernize existing enterprises, workshops, production areas using computer-aided design systems and software.

PLO13. Choose modern equipment for the technical equipment of new or reconstructed enterprises ( shops ), know the principles of its operation and operating rules, and draw up equipment and technological schemes for the production of food products of the designed assortment.

PLO14. Increase production efficiency by implementing resource-saving and competitive technologies, analyze the state and dynamics of demand for food products.

PLO15. Implement modern enterprise management systems.

PLO16. Comply with safety regulations and carry out technical and organizational measures to organize safe working conditions during production activities.

PLO17. Organize the waste disposal process and ensure environmental cleanliness of production.

PLO18. Have basic skills in conducting theoretical and/or experimental scientific research, performed individually and/or as part of a scientific group.

PLO19. Increase work efficiency by combining independent and team work.

PLO20. Be able to draw up business documentation in the state language.

PLO21. Be able to communicate the results of activities to a professional audience and the general public in order to convey ideas, problems, solutions and own experience in the field of food technology.

PLO22. Carry out business communications in the professional sphere in Ukrainian and foreign languages.

PLO23. Have skills in organizing the work of individual production units of the enterprise and coordinating their activities.

PLO24. Carry out technological, technical, and economic calculations within the framework of the development and

	<p>introduction of food products to the consumer market, and keep records of the costs of material resources.</p> <p>PLO25. Show creative initiative on issues of market transformation of the economy.</p> <p>PLO26. To form and defend one's own worldview and public position, to act socially responsibly and consciously.</p> <p>PLO27. Preserve and increase the achievements and values of society, lead a healthy lifestyle.</p> <p>PLO28. Deeply understand the importance of national security, the preservation of Ukrainian statehood and the functioning of the institutions that protect it; demonstrate civic responsibility and active involvement in the process of its maintenance, guided by the principles of value -oriented and ethical leadership in professional and public activities.</p> <p>PRO29. The ability to critically reflect on global challenges related to climate change, digitalization and social transformation, as well as to apply digital tools to solve complex problems of sustainable development in a multicultural and democratic environment.</p> <p>PRO30. To carry out modeling of technological processes of food enterprises and restaurant establishments in order to quickly adapt them to production conditions.</p> <p>PRO31. To carry out a comprehensive assessment of raw materials and auxiliary materials during the processing of agro-industrial complex products into food products.</p> <p>PRO32. To be able to implement rational methods of organizing the production of restaurant products.</p>
Certification form	<p>Certification is carried out in the form of a public defense of the qualification work, which involves the independent solution of a specialized project or research task. The qualification work cannot contain academic plagiarism, falsification, or copying. The qualification work must be posted on the website of the higher education institution or its structural unit, or in the repository of the higher education institution.</p>
<b>8 - Resource provision for program implementation</b>	
Human resources	<p>The staffing of the Faculty of Food Technologies of Sumy NAU allows for the training of higher education applicants and meets regulatory requirements.</p>
Logistics and technical support	<p>The material and technical support of the Faculty of Food Technologies of Sumy NAU allows for the training of higher education applicants and meets regulatory requirements. To ensure the educational process, the following are used: a library; laboratories equipped with technical means and specialized equipment, experimental and industrial installations and devices, production equipment, inventory and utensils; classrooms; a sports</p>

	complex; a food processing plant; computer classes; a dormitory; a medical center.
Information and educational and methodological support	The educational process of preparing higher education applicants is provided with methodological and informational materials for lectures, practical, seminar, laboratory work, tasks for independent work of students, questions for current and final control, programs and databases for completing internships in full, as well as the availability of reading rooms, textbooks, study guides, and periodicals.
<b>9 — Academic mobility</b>	
National credit mobility	National credit mobility of students, postgraduates, doctoral students, scientific and scientific-pedagogical employees of the University, including training, internships, educational and industrial practices, conducting scientific research, teaching and advanced training, is organized on the basis of partnership agreements on cooperation between the University and universities of Ukraine in accordance with the "Regulations on the procedure for exercising the right to academic mobility of Sumy National Agrarian University".
International credit mobility	Possible on the basis of agreements on academic credit mobility with higher education institutions of other countries. Within the framework of the EU Erasmus+ program on the basis of bilateral agreements between Sumy NAU and educational institutions of partner countries.
Education of foreign higher education applicants	According to the "Rules for Admission to Sumy NAU", education of higher education applicants from other countries of the world is carried out in Ukrainian and English.

## 2. List of components of the educational and professional program and their logical sequence

### 2.1 List of EPP components

Code n/a	Educational and professional program component	Number of credits	Final control form
<b>1. Mandatory components of the EPP</b>			
<b>1.1. Cycle of general training disciplines</b>			
MC1	Historical and philosophical studies	5.0	Exam
MC2	Foreign language	5.0	Exam
MC3	Civic education	5.0	Exam
MC4	Ukrainian language and academic writing	5.0	Exam
MC5	National Resilience Studies:		
MC5.1	Theoretical part of the BZVP/Psychological adaptation1	3,0	Dif.credit
MC5.2	Sustainable development in the digital age	2,0	Dif.credit

MC6	Higher mathematics	5.0	Exam
MC7	Modern multimedia technologies	5.0	Exam
1.2. Cycle of professional training disciplines			
MC8	Engineering and computer graphics	5.0	Dif.credit
MC9	Theoretical foundations of food production	5.0	Exam
MC10	Food microbiology	5.0	Exam
MC11	Food control methods	5.0	Exam
MC12	Automation of production processes of food enterprises and restaurant establishments	5.0	Exam
MC13	Fundamentals of physiology and food hygiene	5.0	Exam
MC14	Chemistry	5.0	Exam
MC15	Biochemistry	5.0	Exam
MC16	Food production processes and equipment	5.0	Exam
MC17	Economics and management of food production	5.0	Exam
MC18	Fundamentals of scientific research	5.0	Dif.credit
MC19	Technologies of grain, bread, pasta, confectionery and food concentrates	5.0	Dif.credit
MC20	Plant raw material processing technologies	5.0	Dif.credit
MC21	The technology of water, soft drinks, low-alcohol and alcoholic beverages	5.0	Dif.credit
MC22	Technological equipment for food production	5.0	Exam
MC23	Milk and dairy technology	5.0	Exam
MC24	Meat, meat products and fish technologies	5.0	Dif.credit
MC25	Technological equipment for meat and milk processing enterprises	5.0	Exam
MC26	Food enterprise design	5.0	Exam
MC27	Restaurant technology	5.0	Exam
MC28	Equipment for catering establishments	5.0	Exam
MC29	Design of restaurant establishments	5.0	Exam
MC30	Life safety and occupational health	5.0	Dif.credit
MC31	Standardization, certification, quality and food safety management	5.0	Exam
MC32	Organization of industry enterprises	5.0	Dif.credit
MC33	Teaching practice	5.0	Dif.credit
	Production practice	5.0	Dif.credit
	Pre-graduate practice	5.0	Dif.credit
MC34	Qualification work	5.0	Public protection
Total volume of mandatory EPP components:		180 ECTS credits	
2. Selective EPP components			
2.1 Cycle of general training disciplines*			
SC1.	Choice of physical activity	5.0	Test
SC2.	Humanities elective discipline	5.0	Test

SC3.	Selective discipline aimed at developing general competencies	5.0	Test
SC4.	Selective discipline aimed at developing general competencies	5.0	Test
<b>2.2. Cycle of professional training disciplines**</b>			
SC5.	Selective discipline	5.0	Test
SC6.	Selective discipline	5.0	Test
SC7.	Selective discipline	5.0	Test
SC8.	Selective discipline	5.0	Test
SC9.	Selective discipline	5.0	Test
SC10.	Selective discipline	5.0	Test
SC11.	Selective discipline	5.0	Test
SC12.	Selective discipline	5.0	Test
<b>Total volume of sample components:</b>		<b>60 ECTS credits</b>	
<b>TOTAL SCOPE OF THE EDUCATIONAL AND VOCATIONAL PROGRAM</b>		<b>240 ECTS credits</b>	

<sup>1</sup>MK 5.1 Psychological adaptation is taught to applicants who are not scheduled to study the discipline OK 5.1 Theoretical part of the BZVP, in particular, applicants for higher education:  
-part-time studies;

-from among foreign citizens;

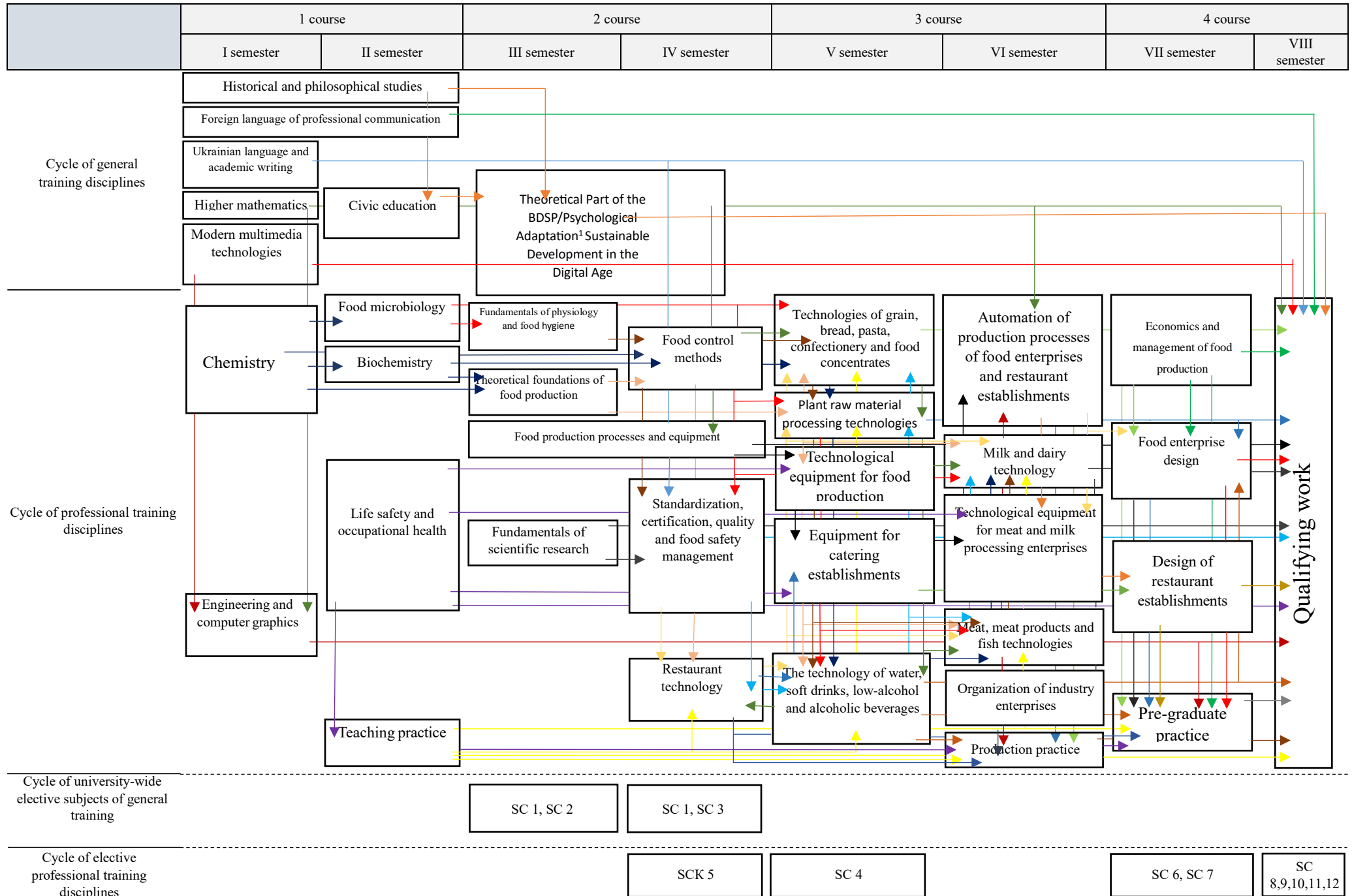
- full-time female students;

all persons entitled to benefits in accordance with the Resolution of the Cabinet of Ministers of Ukraine dated 06/21/2024 No. 734.

\* SC1...SC4 selective components of general university-level training

\*\* SC5...SC12 selective components of professional training according to the faculty list

# Structural and logical diagram of the educational and professional program





### **3. Certification form for higher education applicants**

The final result of a student's education is certification and awarding him a higher education degree of Bachelor of Food Technology. Certification of applicants for higher education in the educational and professional program "Food Technology" of the first (bachelor's) level is carried out in the form of a defense of a qualification work and is completed by issuing a document of the established sample on awarding a higher education degree of Bachelor of Food Technology. Certification is carried out openly and publicly

#### 4. Matrix of correspondence of program competencies to components of the educational and professional program

	MC1	MC2	MC3	MC4	MC5.1	MC5.2	MC6	MC7	MC8	MC9	MC10	MC11	MC12	MC13	MC14	MC15	MC16	MC17	MC18	MC19	MC20	MC21	MC22	MC23	MC24	MC25	MC26	MC27	MC28	MC29	MC30	MC31	MC32	MC33	MC34		
C01			+							+			+	+					+		+	+	+	+	+	+	+	+	+	+				+			
C02	+	+	+	+			+		+				+	+	+	+			+	+	+	+	+	+	+	+	+	+	+	+							
C03			+										+				+	+					+		+	+	+								+		
C04		+	+	+				+	+				+				+		+								+										
C05	+	+	+				+	+					+		+	+	+		+		+	+	+	+	+	+					+	+		+		+	
C06							+	+		+		+		+		+			+	+	+	+		+	+							+		+			
C07			+				+	+		+	+	+		+	+	+		+	+	+	+	+		+	+	+	+	+			+				+		
C08			+				+		+									+	+		+	+		+	+	+	+	+								+	
C09			+					+		+	+	+		+	+	+				+	+	+	+	+	+	+					+		+				
C10			+								+			+	+													+				+	+				
C11	+			+																																+	
C12		+																																			
C13	+	+	+	+																																	
C14	+	+		+																																	
C15		+																																			
C16					+				+										+		+			+	+		+	+								+	
C17					+		+		+				+			+				+		+	+	+	+	+	+			+					+		
C18											+	+									+				+								+		+		
C19											+	+	+								+				+				+				+				
C20																+				+	+	+			+	+			+								
C21																	+	+										+			+		+		+		
C22																+				+		+	+			+				+				+			
C23									+	+	+		+	+	+					+		+			+												
C24			+																			+					+			+			+				
C25																			+									+					+			+	
C26																	+	+							+									+	+		
C27																		+											+			+			+	+	
C28													+					+	+															+			
C29																													+	+			+				
C30																																					
C31																																					

**5. Matrix of ensuring program learning outcomes (PLO) by the corresponding components of the educational and professional program**

	MC1	MC2	MC3	MC4	MC5.1	MC5.2	MC6	MC7	MC8	MC9	MC10	MC11	MC12	MC13	MC14	MC15	MC16	MC17	MC18	MC19	MC20	MC21	MC22	MC23	MC24	MC25	MC26	MC27	MC28	MC29	MC30	MC31	MC32	MC33	MC34
PLO1			+							+		+									+	+	+	+	+	+	+		+				+	+	+
PLO2	+			+			+		+								+																	+	
PLO3							+	+	+				+				+																	+	+
PLO4								+	+				+						+				+	+	+	+	+	+					+		+
PLO5										+	+	+		+	+	+	+		+	+	+	+	+	+	+	+						+		+	
PLO6										+	+			+	+	+			+	+	+	+	+	+	+	+			+						
PLO7							+						+									+	+	+	+						+				
PLO8														+						+	+			+	+				+					+	
PLO9																					+								+					+	
PLO10																					+	+											+	+	
PLO11												+													+	+					+		+		
PLO12		+						+	+				+													+	+			+				+	
PLO13																	+						+				+		+	+	+			+	
PLO14													+				+	+	+		+	+			+						+		+	+	
PLO15																		+																+	
PLO16			+					+									+						+			+					+	+	+		
PLO17			+																		+	+			+								+	+	
PLO18										+		+			+	+			+												+		+		
PLO19	+	+	+				+			+	+					+	+	+	+	+	+			+	+	+	+	+	+	+		+	+	+	+
PLO20			+	+																	+												+	+	
PLO21				+				+												+	+												+	+	
PLO22		+	+	+																														+	
PLO23																		+														+	+	+	
PLO24							+		+					+				+	+	+	+		+	+		+		+					+		
PLO25			+															+																+	+
PLO26	+		+																														+		
PLO27	+		+																		+	+											+		
PLO28					+																														
PLO29						+													+	+		+			+	+	+	+	+				+		
PLO30						+						+								+													+		
PLO31																																		+	
PLO32																																			+

## **List of regulatory documents on which the EPP is based**

1. List of regulatory documents on which the OPP is based 1. Law of Ukraine dated 01.07.2014 No. 1556-VII “On Higher Education” [Access mode: <https://zakon.rada.gov.ua/laws/show/1556-18>].
2. Law of Ukraine dated 05.09.2017 “On Education” – [Access mode: <http://zakon5.rada.gov.ua/laws/show/2145-19>].
3. Resolution of the Cabinet of Ministers of Ukraine dated 29.04.2015 No. 266 “On Approval of the List of Fields of Knowledge and Specialties in Which Higher Education Applicants Are Trained” [Access mode: <http://zakon4.rada.gov.ua/laws/show/266-2015-п>].
4. Resolution of the Cabinet of Ministers of Ukraine dated 30.12.2015 No. 1187 “On approval of the Licensing Conditions for the implementation of educational activities of educational institutions” [Access mode: <http://zakon4.rada.gov.ua/laws/show/1187-2015-п/page>].
5. Resolution of the Cabinet of Ministers of Ukraine dated 23.11.2011 No. 1341 “On approval of the National Qualifications Framework” [Access mode: <http://zakon4.rada.gov.ua/laws/show/1341-2011-п>].
6. National Classifier of Ukraine: “Classifier of Professions DK 003: 2010DK 003:2010 [Access mode: <http://www.dk003.com>].
7. Standard of higher education in the specialty 181 "Food Technologies" of the field of knowledge 18 "Production and Technologies" for the first (bachelor's) level of higher education. Approved and put into effect by the order of the Ministry of Education and Science of Ukraine dated 18.10. 2018. No. 1125 [Access mode: <https://mon.gov.ua/storage/app/media/vishchaosvita/zatverdzeni%20standarty/12/21/181-kharchovi-tekhnologii-bakalavr.pdf>].
8. Regulations on educational programs at Sumy National Agrarian University dated October 15, 2019. [Access mode: <https://snau.edu.ua/wpcontent/uploads/2019/12/%D0%9F%D0%BE%D0%BB%D0%BE%D0%B6%D0%B5%D0%BD%D0%BD%D1%8F-%D0%BF%D1%80%D0%BE-%D0%9E%D1%81%D0%B2%D1%96%D1%82%D0%BD%D1%96-D0%BF%D1%80%D0%BE%D0%B3%D1%80%D0%B0%D0%BC%D0%B8-%D0%A1%D0%9D%D0%90%D0%A3-1.pdf>].
9. Standards and Recommendations for Quality Assurance in the European Higher Education Area (ESG) [Access mode: [http://ihed.org.ua/images/doc/04\\_2016\\_ESG\\_2015.pdf](http://ihed.org.ua/images/doc/04_2016_ESG_2015.pdf)].
10. International Standard Classification of Education (ISCED 2011): UNESCO Institute for Statistics [Access mode: <http://www.uis.unesco.org/education/documents/isced-2011-en.pdf>].
11. ISCED Fields of Education and Training 2013 (ISCED-F 2013): UNESCO Institute for Statistics [Access mode: <http://www.uis.unesco.org/Education/Documents/isced-fields-of-education-training-2013.pdf>].

12. Methodological recommendations on the development of higher education standards, approved by the order of the Ministry of Education and Science of Ukraine dated 01.06.2017 No. 600 (as amended by the order of the Ministry of Education and Science of Ukraine dated 21.12.2017 No. 1648), approved by the higher education sector of the Scientific and Methodological Council of the Ministry of Education and Science of Ukraine (minutes dated 29.03.2016 No. 3).
13. Development of educational programs. Methodological recommendations [Access mode: [http://ihed.org.ua/images/doc/04\\_2016\\_rozroblennya\\_osv\\_program\\_2014\\_tempusoffice.pdf](http://ihed.org.ua/images/doc/04_2016_rozroblennya_osv_program_2014_tempusoffice.pdf)].
14. National Educational Glossary: Higher Education [Access Mode: [http://ihed.org.ua/images/doc/04\\_2016\\_glossariy\\_Visha\\_osvita\\_2014\\_tempus-office.pdf](http://ihed.org.ua/images/doc/04_2016_glossariy_Visha_osvita_2014_tempus-office.pdf)].
15. Development of the Quality Assurance System of Higher Education in Ukraine: Information and Analytical Review [Access Mode: [http://ihed.org.ua/images/doc/04\\_2016\\_Rozvitok\\_sisitemi\\_zabesp\\_yakosti\\_VO\\_UA\\_2015.pdf](http://ihed.org.ua/images/doc/04_2016_Rozvitok_sisitemi_zabesp_yakosti_VO_UA_2015.pdf)].
16. European Credit Transfer and Accumulation System: User Guide [Access Mode: [http://ihed.org.ua/images/doc/04\\_2016\\_ECTS\\_Users\\_Guide-2015\\_Ukrainian.pdf](http://ihed.org.ua/images/doc/04_2016_ECTS_Users_Guide-2015_Ukrainian.pdf)].
17. EQF-LLL – European Qualifications Framework for Lifelong Learning [Access mode: [https://ec.europa.eu/ploteus/sites/eac-eqf/files/brochexp\\_en.pdf](https://ec.europa.eu/ploteus/sites/eac-eqf/files/brochexp_en.pdf)].
18. QF-EHEA – Qualification Framework of the European Higher Education Area [Access mode: <http://www.ehea.info/article-details.aspx?ArticleId=67>].
19. Rashkevych Yu. M. Bologna Process and the New Paradigm of Higher Education [Access mode: <file:///D:/Users/Dell/Downloads/BolonskyiProcessNewParadigmHE.pdf>].
20. TUNING (for familiarization with special (professional) competencies and examples of standards [Access mode: <http://www.unideusto.org/tuningeu/>].
21. Regulations on the organization of the educational process at Sumy National Agrarian University.
22. Development Strategy of SNAU for 2026-2030.
23. Strategic Plan for the Internationalization of SNAU for 2026-2030.
24. Conceptual Principles of the Humanitarian Component of Specialist Training.
25. Regulations on the Quality Assurance System of Higher Education (Internal Quality Assurance System) of SNAU.