

Ministry of Education and Science of Ukraine  
State higher education institution  
«Ukrainian State University of Chemical Technology»

Rector SHEI USUCE  
\_\_\_\_\_ O. Pivovarov  
« \_\_\_\_ » \_\_\_\_\_ 2017 y.

**EDUCATION PROFESSIONAL PROGRAM**

**Food technology**

(Name of educational program)

**The first (bachelor) level**

(name of higher education level)

**Bachelor**

(name of degree awarded)

**BRANCH OF KNOWLEDGE 18 Production and technology**  
(code and domain name)

**SPECIALTY 181 Food technology**  
(code and specialty name)

Approved at the meeting  
academic council SHEI USUCE  
from 29.06.2017 y. protocol №7

The Dnieper  
2017

Letter of approval  
EDUCATIONAL PROFESSIONAL PROGRAM

Higher education level	The first (bachelor) level
Branch of knowledge	18 Production and technology
Specialty	181 Food technology
<b>"AGREED"</b>	<b>"DEVELOPERS"</b>
<p>First vice-rector, chairman of the scientific and methodological council SHEI USUCE</p> <p>_____ <u>Goleus V.</u> (signature) (surname and initials)</p> <p>„_____” _____ 2017 y.</p>	<p>Project team leader docent of the department of CTMC</p> <p>_____ <u>Filinska T.</u> (signature) (surname and initials)</p> <p>„_____” _____ 2017 y.</p>
<p>Head of educational and scientific center</p> <p>_____ <u>Smotraev R.</u> (signature) (surname and initials)</p> <p>„_____” _____ 2017 y.</p>	<p>Member of the project team professor of the department of CTMC</p> <p>_____ <u>Chervakov O.</u> (signature) (surname and initials)</p> <p>„_____” _____ 2017 y.</p>
<p>Scientific and methodical department</p> <p>_____ <u>Fomenko G.</u> (signature) (surname and initials)</p> <p>„_____” _____ 2017 y.</p>	<p>Member of the project team docent of the department of CTMC</p> <p>_____ <u>Holub L.</u> (signature) (surname and initials)</p> <p>„_____” _____ 2017 y.</p>
<p>Dean of the Faculty of Macromolecular Technology</p> <p>_____ <u>Ovcharov V.</u> (signature) (surname and initials)</p> <p>„_____” _____ 2017 y.</p>	
<p>Head of Department</p> <p>_____ <u>Chervakov O.</u> (signature) (surname and initials)</p> <p>„_____” _____ 2017 y.</p>	<p>The educational and professional program was enacted by order of the rector № <u>244</u> from «<u>27</u>» <u>11</u> 2017 y.</p>

# I. PROFILE OF THE BACHELOR EDUCATION PROFESSIONAL PROGRAM

**majoring in «Food Technology»**

<b>Program Profile (general Information)</b>	
<b>Full name of the qualification in the original language</b>	Higher Education Degree – Bachelor's Degree in Food Technology
<b>The official name of the educational program</b>	Educational-professional program "Food Technologies", specialty 181 Food Technologies
<b>Type of diploma and scope of the educational program</b>	Bachelor's Degree in Food Technology, single (double, joint with relevant contracts, training programs); 240 ECTS credits
<b>Full name of higher education institution awarding the qualification</b>	State Higher Educational Institution "Ukrainian State University of Chemical Technology"
<b>Accrediting organization</b>	Accreditation Commission of Ukraine (State Educational and Training Center for Educational Quality). National agency for quality assurance in higher education.
<b>Accreditation period</b>	Certificate validity after initial accreditation – 5 years, after repeated – 10 years.
<b>Cycle / level</b>	NQF of Ukraine – Level 6, FQ-EHEA – First Cycle, EQF-LLL – Level 6
<b>Prerequisites</b>	Complete secondary education
<b>Language (s) of teaching</b>	Ukrainian language
<b>A</b>	
<b>The purpose of the educational program</b>	
<b>The purpose of the educational program</b>	Provide students with knowledge, skills and understanding in the field of food technology that will enable them to perform original scientific research or work independently in the industry.
<b>B</b>	
<b>Characteristics of the educational program</b>	
<b>Subject area (field of knowledge, specialty)</b>	Knowledge Area 18 – <i>Manufacturing and Technology</i> : specialty 181 – <i>Food technology</i>
<b>The main focus of the program and specialization</b>	Bachelor in Food Technology

<b>Orientation of the program</b>	The professional and application directions are practically oriented; the research direction is scientifically oriented.
<b>Features and differences</b>	The program is practically aimed.
<b>C</b>	<b>Ability to find employment and further education</b>
<b>Employment ability</b>	Jobs in high-tech food companies, oil and fat extraction and processing companies, and related industries.
<b>Further training</b>	Study at the second (master's) level in food technology programs.
<b>D</b>	<b>Teaching style and teaching methodology</b>
<b>Approaches to teaching and learning</b>	Combination of lectures, practicals and seminars, experimental research in laboratories, writing of course projects or works, self-study, preparation of qualifying bachelor's work.
<b>Assessment methods</b>	Written and oral exams, credits, presentations, bachelor's degree defense, and state certification.
<b>E</b>	<b>Software competencies</b>
<b>Integrated Competence (INT)</b>	<i>Bachelor (Level 2): The ability to solve complex specialized problems and practical problems in food technology or in the learning process, which involves the application of certain theories and methods of food technology and is characterized by the complexity and uncertainty of the conditions.</i>
<b>General Competencies (GC)</b>	GC -1. Ability to apply knowledge in practical situations. GC -2. Ability to plan and manage time. GC -3. Knowledge and understanding of the subject area and understanding of professional activity. GC -4. Ability to communicate in written and oral communication in Ukrainian (professional direction). GC -5. Ability to communicate in a foreign language. GC -6. Use of information and communication technologies. GC -7. Ability to learn and be modernly trained. GC -8. The ability to be critical and self-critical. GC -9. Interpersonal skills. GC -10. Knowledge of national history, culture, economy and law, sufficient to understand the cause and effect relationships of society and the ability to use them in professional and social activities. GC -11. Appreciation and respect for diversity and multiculturalism.

	<p>GC -12. Commitment to security.</p> <p>GC -13. Definition and perseverance about tasks and responsibilities.</p> <p>GC -14. The desire to preserve the environment.</p> <p>GC -15. Ability to use basic knowledge of fundamental sciences to the extent necessary for the theoretical development of vocational-oriented disciplines and the solution of practical problems in food technology.</p>
<p><b>Special (professional) competencies (SC)</b></p>	<p>SC-1. Ability to demonstrate knowledge and understanding of basic facts, concepts, principles and theories relevant to food technology.</p> <p>SC-2. Ability to interpret data from laboratory observations and measurements in terms of their significance and to correlate them with relevant theory.</p> <p>SC-3. Ability to possess methods of observing, describing, identifying and classifying food technology objects and products.</p> <p>SC-4. Sufficient knowledge of English to be able to read, write and present papers, as well as to communicate with other scholars.</p> <p>SC-5. Data computation and processing skills related to food technology information.</p> <p>SC-6. Information retrieval skills for primary and secondary sources of information, including on information retrieval systems through online search. Ability to select and use appropriate equipment, tools and methods for the implementation and control of food production.</p> <p>SC-7. The ability and use of modern computer and communication methods in food technology. Ability to have computer skills at the user level, use information technology to solve experimental and practical problems in the field of professional activity.</p> <p>SC-8. Communicativeness in terms of the ability to interact with others and participate in teamwork. Knowledge and understanding of commercial and economic context for food production design.</p> <p>SC-9. Communicativeness in terms of the ability to interact with others and participate in teamwork.</p> <p>SC-10. The skills to handle chemicals safely, taking into account their physical and chemical properties, including any specific hazards associated with their use.</p> <p>SC-11. Training skills required for continuous professional development.</p> <p>SC-12. Ability to design the results of research activities in the form of a scientific report, report, article.</p>

	<p>SC-13. Ability to use theoretical knowledge and practical skills of natural sciences to master the basics of theory and methods of chemical and technological research.</p> <p>SC-14. Ability to use professionally profiled knowledge, skills and competences in the natural sciences, general chemical technology, processes and apparatus of food production for the analysis, evaluation and design of technological processes and equipment using traditional and alternative raw materials.</p>
<b>F</b>	<b>Program learning outcomes</b>
<b>Learning outcomes in the cognitive (cognitive) field</b>	<p>RKS-1. To select and apply knowledge and understanding of chemistry to solve qualitative and quantitative problems in food production and, in particular, in the production of oil and fat products.</p> <p>RKS-2. Classify and analyze problems of different nature and plan for solving them.</p> <p>RKS-3. Evaluate the impact of technological factors on the composition of the final product.</p> <p>RKS-4. Assess the risks associated with the use of chemicals and laboratory testing and quality control of the starting materials of the chemical processes and the final (commodity) foods of the food technology.</p> <p>RKS-5. Summarize the data obtained from laboratory observations and measurements in terms of their significance and relate them to the relevant theory.</p> <p>RKS-6. To relate the obtained data with the results of mathematical modeling of chemical and chemical-technological processes in food technology.</p> <p>RKS-7. Explain the causes of risks associated with the use of chemicals and laboratory procedures.</p> <p>RKS-8. To carry out qualitative and quantitative analysis of substances of inorganic, organic and biological origin, using appropriate methods of general and inorganic, organic, analytical, physical and colloidal chemistry, biochemistry.</p> <p>RKS-9. To use modern information and communication technologies for search, calculations, creation of graphic and text documents, for mathematical analysis and statistical processing in research and design.</p> <p>RKS-10. To carry out feasibility study of food production (determination of the need for the target product and calculation of production capacity), to have methods of improving the technological process, to understand theoretical and practical approaches to the creation and management of production.</p>

	RKS-11. Select appropriate technological equipment and graphically depict the technological process, using computer-aided design systems for the development of technological and equipment scheme of food production.
<b>Learning outcomes in the value-motivational field</b>	<p>RCMS-1. Meet the requirements of professional ethics in the workplace.</p> <p>RCMS-2. Participate in discussing the results of different types of work (pilot, search, project, etc.).</p> <p>RCMS-3. Desire to work independently.</p> <p>RCMS-4. Ask questions in discussions with colleagues, teachers.</p> <p>RCMS-5. Form an equal treatment of students with different opportunities in the group.</p> <p>RCMS-6. Demonstrate acquired skills in foreign language when creating scientific and project documentation.</p> <p>RCMS-7. To present the results of different types of work (pilot, search, project, etc.) in your native and one of the main European languages.</p> <p>RCMS-8. Organize workplace safety measures.</p> <p>RCMS-9. Understand scientific and technical texts in your native and one of the major European languages.</p>
<b>Learning outcomes in the psychomotor field</b>	<p>RPS-1. Experiment the experiment technique, repeatedly reproduce the results of the experiments to obtain reliable values and calculate the error of the experiment.</p> <p>RPS-2. Observe workplace safety.</p>

**II. DEFINITIONS OF EDUCATIONAL DISCIPLINES / MODULES,  
ensuring the achievement of the planned learning outcomes and forms of  
certification of higher education applicants in accordance with the higher  
education standard**

**Table 1. Distribution of the content of educational and professional program  
by cycles of preparation and form of final control**

No p / n	Subjects	Loans	Hours	Semester	Tetramester	The final control
<b>1. COMPULSORY EDUCATIONAL DISCIPLINES</b>						
<b>1.1 General training cycle (generates competencies)</b>						
1.1.1	History of Ukraine	3	90	1	1, 2	exam
1.1.2	Ukrainian language (professional)	3	90	4	7, 8	exam
1.1.3	History of Ukrainian Culture	2	60	2	4	exam
1.1.4	Philosophy	4	120	3	5, 6	exam
1.1.5	Foreign language (professional)	8	240	1,2	1,2,3,4	exam
1.1.6	Physical education (non-credit discipline)					
1.1.7	Higher mathematics	8	240	1,2	1,2,3,4	exam
1.1.8	Physics	6	180	2,3	3,4,5,6	exam
1.1.9	Informatics and information technologies	5	150	4	7, 8	exam
1.1.10	Ecology	2	60	1	1	offset
	Chemical foundations of food technology, including:					
1.1.11	General and inorganic chemistry	6	180	1	1, 2	exam
1.1.12	Organic chemistry	6	180	3	5,6	exam
1.1.13	Biochemistry	6	180	4	7, 8	exam
<b><i>TOGETHER on cycle 1.1</i></b>		<b>59</b>	<b>1770</b>			
<b>1.2 Training cycle (forms special (professional) competences)</b>						
1.2.1	Engineering graphics	5	150	1,2	1,2,3,4	d. offset
1.2.2	Life Safety	2	60	1	2	offset
1.2.3	Mathematical models in computer calculations (Information technologies in engineering calculations of the branch)	2	60	4	7, 8	d. offset

1.2.4	Economics, organization and management of chemical enterprises	4	120	5	9, 10	exam
1.2.5	Thermotechnics	2	60	6	12	exam
1.2.6	Processes and apparatus of food production	10	300	5,6	9, 10, 11, 12	exam
1.2.7	Standardization, metrology, certification and quality management	3	90	7	13	offset
1.2.8	Control and management of chemical and technological processes	4	120	7	13,14	exam
1.2.9	Basics of labor protection	3	90	7	14	exam
1.2.10	Food chemistry with the basics of physiology	4	120	1	1, 2	offset
1.2.11	Technology of health food products	3	90	2	3, 4	offset
1.2.12	General technologies of food industry	20	600	1, 2, 3, 4	2, 3, 4, 5, 6, 7, 8	d. offset
1.2.13	Technical microbiology	3	90	2	3, 4	exam
1.2.14	Polysaccharide technologies and their applications in the food industry	3	90	5	9, 10	d. offset
1.2.15	Students research work	3	90	8	15	d. offset
	Chemical foundations of food technology, including:					
1.2.16	Analytical chemistry	6	180	3	5, 6	d. offset
1.2.17	Physical and colloidal chemistry	6	180	4	7, 8	exam
1.2.18	Technological practice	6	180	6	11	d. offset
1.2.19	Production practice	4,5	135	8	15, 16	d. offset
1.2.20	Preparation of bachelor's qualification work and SA	13,5	405	8	16	SA
<b>TOGETHER on cycle 1.2</b>			<b>107</b>	<b>3210</b>		
<b>COMPULSORY EDUCATIONAL DISCIPLINES TOGETHER</b>			<b>166</b>	<b>4980</b>		
<b>2. SELECTIVE EDUCATIONAL DISCIPLINES</b>						
<b>2.1 General training cycle (generates competencies)</b>						
2.1.1	Politolology	2	60	2	3	offset
2.1.2	Science of law	2	60	4	8	offset

2.1.3	Economic theory	2	60	4	7	d. offset
<b><i>TOGETHER on cycle 2.1</i></b>		<b><i>6,0</i></b>	<b><i>180</i></b>			
<b>2.2 Training cycle (forms special (professional) competences)</b>						
2.2.1	Applied mechanics	4	120	3	5,6	exam
2.2.2	Electrical engineering	3	90	5	9, 10	d. offset
2.2.3	Material Science	2	60	5	9, 10	offset
2.2.4	Technology of production of vegetable fats	6	180	5	9, 10	exam
2.2.5	Chemistry of lipids and their derivatives	4	120	5	9, 10	d. offset
2.2.6	Technology of production of animal fats	4	120	5	9, 10	exam
2.2.7	Theoretical foundations of food production technology	4	120	6	11,12	d. offset
2.2.8	Industry calculations, accounting and reporting	6	180	6, 7	12, 13	d. offset
2.2.9	Vegetable fats processing technology	13	390	6, 7	11, 12, 13, 14	exam
2.2.10	Technological equipment of the industry	5	150	6, 7	12, 13, 14	exam
2.2.11	Control of quality and safety of industry products	4	120	7	13, 14	offset
2.2.12	Fundamentals of industrial construction	5	150	7, 8	14, 15	exam
2.2.13	Soap and detergent technology	5	150	7, 8	14, 15	exam
2.2.14	Food industry and food packaging industry	3	90	8	15	exam
<b><i>TOGETHER on cycle 2.2</i></b>		<b><i>68</i></b>	<b><i>2040</i></b>			
<b>SELECTIVE PART TOGETHER</b>		<b>74</b>	<b>2220</b>			
<b>THE TOTAL AMOUNT</b>		<b>240</b>	<b>7200</b>			

**Table 2. Generalized distribution of the content of the educational and professional program by groups of components (disciplines) and cycles of preparation**

No p/ n	Preparation cycle	Higher education student load (credits /%)		
		Compulsory components of a professional education program	Selective components of a professional education program	Total for the whole term of study
1.	General training cycle (generates competencies)	59 / 25	6 / 2	65 / 27
2.	Training cycle (forms special (professional) competences)	107 / 45	68 / 28	175 / 73
<b>Total for the whole term of study</b>		166 / 70	74 / 30	240 / 100



**Table 3. List of disciplines of the educational and professional training program for second-level (master's) students, educational time in ECTS credits by training cycles, and a list of competences and learning outcomes formed**

Educational cycles	Competency Codes	Codes of learning outcomes	List of disciplines	ECTS credits
1	2	3	4	5
1.1. General training cycle (generates competencies)	GC-1, GC-2, GC-8, GC-9, GC-10, GC-11	RCMS-4, RCMS-5	1.1.1 History of Ukraine	3,0
	GC-1, GC-3, GC-4, GC-9, GC-11	RKS-9, RCMS-4, RCMS-6, RCMS-7, RCMS-8, RCMS-9,	1.1.2 Ukrainian language (professional)	3,0
	GC-1, GC-7, GC-10, GC-11	RCMS-1, RCMS-3, RCMS-4, RCMS-5	1.1.3 History of Ukrainian Culture	2,0
	GC-1, GC-2, GC-7, GC-8, GC-9, GC-11	RCMS-1, RCMS-3, RCMS-4, RCMS-5	1.1.4 Philosophy	4,0
	GC-1, GC-3, GC-5, GC-6, GC-9, GC-11, SC-4	RKS-9, RCMS-6, RCMS-7, RCMS-9	1.1.5 Foreign language (professional)	8,0
			1.1.6 Physical education (non-credit discipline)	
	GC -1, GC-3, GC-8, GC-15, SC-1, SC-2, SC-13	RKS-6, RKS-9, RPS-1	1.1.7 Higher mathematics	8,0
	GC-1, GC-2, GC-3, GC-6, GC-8, GC-12, GC-13, GC-15, SC-1, SC-2, SC-13	RKS-6, RKS-8, RKS-9, RPS-1	1.1.8 Physics	6,0
	GC-1, GC-2, GC-3, GC-6, GC-8, GC-13, GC-15, SC-1, SC-2, SC-5	RKS-6, RKS-8, RKS-9, RPS-1	1.1.9 Informatics and information technologies	5,0
	GC-1, GC-3, GC-8, GC-12,	RKS-1, RKS-3, RKS-4, RKS-8,	1.1.10 Ecology	2,0

	GC-13, GC-14, GC-15, SC-2	RKS-10, RCMS-4, RCMS-8, RPS-1, RPS-2		
			Chemical foundations of food technology, including:	
	GC-1, GC-3, GC-8, GC-12, GC-13, GC-15, SC-1, SC-2, SC-3, SC-10, SC-13	RKS-1, RKS-3, RKS-8, RKS-10, RCMS-4, RPS-1, RPS-2	1.1.11 General and inorganic chemistry	6,0
	GC-1, GC-3, GC-8, GC-12, GC-13, GC-15, SC-1, SC-2, SC-3, SC-10, SC-13	RKS-1, RKS-3, RKS-8, RKS-10, RCMS-4, RPS-1, RPS-2	1.1.12 Organic chemistry	6,0
	GC-1, GC-3, GC-8, GC-12, GC-13, GC-15, SC-1, SC-2, SC-3, SC-10, SC-13	RKS-1, RKS-3, RKS-8, RKS-10, RCMS-4, RPS-1, RPS-2	1.1.13 Biochemistry	6,0
	GC-1, GC-8	RCMS-1, RCMS-3, RCMS-4, RCMS-5	2.1.1 Politology	2,0
	GC-1, GC-10	RKS-10, RCMS-1, RCMS-3, RCMS-4, RCMS-5, RCMS-8, RPS-2	2.1.2 Science of law	2,0
	GC-1, GC-8, GC-10	RKS-10, RCMS-1, RCMS-3, RCMS-4, RCMS-5,	2.1.3 Economic theory	2,0
			<b>TOGETHER 1.1</b>	<b>65,0</b>

1.2 Training cycle (forms special (professiona l) competence s)	GC-1, GC-2 , GC-7, GC-13, SC-11, SC-12	RCMS-2, RCMS-3, RCMS-4	1.2.1 Engineering graphics	5,0
	GC-1, GC-4, GC-7, GC-8, GC- 12, GC-13, SC-10	RKS-2, RKS-4, RKS-7, RCMS-1, RCMS-8, RCMS-9, RPS-2	1.2.2 Life Safety	2,0
	GC-1, GC-2, GC-3, GC-5 GC-6, GC-7, GC-8, GC-9, SC-1, SC-2, SC-3, SC-4, SC-5, SC-6, SC-7, SC-8, SC-11	RKS-1, RKS-6, RKS-9, RCMS-2, RCMS-3, RCMS-4, RCMS-5, RCMS-6	1.2.3 Mathematical models in computer calculations (Information technologies in engineering calculations of the branch)	2,0
	GC-1, GC-2, GC-3, GC-4, GC- 6, GC-7, GC-8, GC-9, GC-10, GC-11, GC-13, GC-15, SC-3, SC-4, SC-6, SC-7, SC-8, SC-11, SC-13	RKS-10, RCMS-1, RCMS-3, RCMS-4, RCMS-5	1.2.4 Economics, organization and management of chemical enterprises	4,0
	GC-1, GC-3, GC-4, GC-7, GC- 15, SC-1, SC-2, SC-3, SC-4, SC- 5, SC-6, SC-7, SC-8, SC-10, SC-11, SC-14	RKS-1, RKS-2, RKS-3, RKS-5, RKS-6, RKS-9, RKS-11, RCMS-3, RCMS-9	1.2.5 Thermotechnics	2,0
	GC-1, GC-2, GC-3, GC-6, GC- 7, GC-8, GC-12, GC-13, GC-14, GC-15, SC-1, SC-2, SC-3, SC-5, SC-6,	RKS-1, RKS-2, RKS-3, RKS-7, RCMS-1, RCMS-2, RCMS-3, RCMS-8, RPS-1, RPS-2	1.2.6 Processes and apparatus of food production	10,0
	SC-7, SC-8, SC-9, SC-10, SC-11, SC-12, SC-13, SC-14			
GC-1, GC-2, GC-3, GC-6, GC- 7, GC-8, GC-12, GC-13, GC-14, GC-15, SC-1, SC-2, SC-3, SC-5, SC-6, SC-7, SC-9, SC-10, SC-	RKS-1, RKS-2, RKS-3, RKS-4, RKS -5, RKS -6, RCMS -1, RCMS -2, RCMS -3, RCMS -4, RCMS -8,	1.2.7. Standardization, metrology, certification and quality management	3,0	

	11, SC-14	RPS -1, RPS-2		
	GC -1, GC-2, GC-3, GC-6, GC -7, GC-8, GC-12, GC-13, GC-14, GC-15, SC-1, SC-2, SC-3, SC-5, SC-6, SC-7, SC 8, SC-9, SC-10, SC-11, SC-12, SC-13, SC-14	RKS-1, RKS-2, RKS-3, RKS-7, RKS -10, RCMS-1, RCMS-2, RCMS-3, RCMS-8, RPS-1, RPS-2	1.2.8. Control and management of chemical and technological processes	4,0
	GC-1, GC-2, GC-3, GC-7, GC -8, GC -9, GC -12, GC -14, SC-10, SC-12	RKS-2, RKS-4, RKS-7, RCMS-1, RCMS-8, RCMS-9, RPS-2	1.2.9. Basics of labor protection	3,0
	GC-1, GC-2, GC-3, GC-6, GC-7, GC-8, GC-9, GC-12, GC-13, GC-15, SC-1, SC-2, SC-3, SC-5, SC-7, SC-9, SC-10, SC-11, SC-13	RKS-2, RKS-5, RKS-8, RCMS-1, RCMS -2, RCMS -3, RCMS -4, RPS-2	1.2.10. Food chemistry with the basics of physiology	4,0
	GC-1, GC-2, GC-3, GC-6, GC -7, GC-8, GC-12, GC-15, SC-1, SC-3, SC-5, SC-7, SC-11, SC-13	RKS-2, RCMS-2, RCMS-3, RCMS-4,	1.2.11. Technology of health food products	3,0
	GC-1, GC-2, GC-3, GC-6, GC -7, GC -8, GC -9, GC -12, GC -13, GC-14, GC-15, SC-1, SC-2, SC-3, SC-5, SC-7, SC-9, SC-10, SC-11, SC-13	RKS-1, RKS-2, RKS-3, RKS -5, RKS-7, PKC-8, RCMS-1, RCMS-2, RCMS-3, RCMS-4, RCMS-8, RCMS-1, RCMS-2	1.2.12. General technologies of food industry	20,0
	GC-1, GC-2, GC-3, GC-7, GC -8, GC -9, GC -12, GC -13, SC -1, SC -2, SC -3, SC -5,	RKS -2, RKS -5, RKS -7, RKS -8, RCMS-1, RCMS-2, RCMS-3, RCMS-4, RCMS-8,	1.2.13. Technical Microbiology	3,0

	SC -9, SC -10, SC -11, SC -13	RPS-2		
	GC-1, GC-2, GC-3, GC-7, GC-8, GC-9, GC-12, GC-13, GC-15, SC-1, SC-2, SC-3, SC-5, SC-7, SC-9, SC-10, SC-11, SC-13	RKS-2, RKS-5, RKS-7, RKS-8, RCMS-1, RCMS -2, RCMS-3, RCMS-4, RCMS-8, RPS-2	1.2.14. Polysaccharide technologies and their applications in the food industry	3,0
	GC-1, GC-2, GC-3, GC-6, GC-7, GC-8, GC-9, GC-12, GC-13, GC-14, GC-15, SC-1, SC-2, SC-3, S -4, SC-5, SC-6, SC-7, SC-9, SC-10, SC-11, SC-12, SC-13, SC-14	RKS -1, RKS -2, RKS-3, RKS-4, RKS-5, RKS -6, RKS-7, RKS -8, RKS -9, RKS-10, RKS -11, RCMS-1, RCMS-2, RCMS-3, RCMS -4, RCMS-6, RCMS-7, RCMS-8, RCMS-9, RPS-1, RPS-2	1.2.15. Students research work	3,0
			Chemical foundations of food technology, including:	
	GC-1, GC-2, GC-3, GC-4, GC -6, GC-7, GC-8, GC-9, GC-11, GC-12, GC-13, GC-14, SC-1, SC-2, SC-3, SC-5, SC-6,	RKS-1, RKS-3, RKS-8, RKS-10, RCMS -4, RPS1, RPS -2	1.2.16. Analytical chemistry	6,0
	SC-7, SC-8, SC-9, SC-10, SC-11, SC-12, SC-13			
	GC-1, GC-2, GC-3, GC-4, GC-6, GC-7, GC-8, GC-9, GC-11, GC-12, GC-13, GC-14, SC-1, SC-2, SC-3, SC-5, SC-6, SC-7, SC-8, SC-9, SC-10, SC-11, SC-12, SC-	RKS-1, RKS-3, RKS-8, RKS-10, RCMS-4, RPS-1, RP -2	1.2.17. Physical and colloidal chemistry	6,0

	13			
	GC-1, GC-2, GC-3, GC-4, GC-6, GC-7, GC-8, GC-9, GC-12, GC-13, GC-14, GC-15, SC-1, SC-2, SC-3, SC-5, SC-6, SC-7, SC-9, SC-10, SC-11, SC-13	RKS-1, RKS-2, RKS-3, RKS-4, RKS -5, RKS -7, RKS -8, RKS -10, RKS-11, RCMS-1, RCMS-2, RCMS-3, RCMS-4, RCMS-5, RCMS-6, RCMS-8, RCMS-9, RPS-2	1.2.18. Technological practice	6,0
	GC-1, GC-2, GC-3, GC-4, GC-6, GC -7, GC -8, GC-9, GC-12, GC-13, GC-14, GC-15, SC-1, SC-2, SC-3, SC-5, SC-6, SC-7, SC-9, SC-10, SC-11, SC-13	RKS-1, RKS-2, RKS-3, RKS-4, RKS-5, RKS-7, RKS-8, RKS-10, RKS-11, RCMS-1, RCMS-2, RCMS-3, RCMS-4, RCMS-5, RCMS-6, RCMS-8, RCMS-9, RPS-2	1.2.19. Internship	4,5
	GC-1, GC-3, GC-4, GC-6, GC-7, GC -8, GC -12, GC -14, GC -15, SC-1, SC-2, SC-3, SC-4, SC -5, SC -6, SC -7, SC -8, SC -9, SC -10, SC -11, SC -12, SC -13,	RKS-2, RKS-3, RKS-4, RKS-5, RKS-6, RKS-7, RKS-8, RKS -9, RKS-10, RKS-11, RCMS-2, RCMS-3, RCMS-4, RCMS-6, RCMS-7, RCMS-9,	1.2.20. Preparation of bachelor's qualification work and state certification	13,5
	SC -14	RPS-1, RPS-2		
	GC -3, GC -4, GC -6, GC -7, GC -11, GC -14, GC -15, SC -1	RKS-1, RKS-2, RKS-9, RKS-11, RCMS-3	2.2.1. Applied mechanics	4,0
	GC -1, GC -3, GC -4, GC -6, GC -7, GC -15, SC -1, SC -2, SC -6, SC -7, SC -11, SC -13	RKS-2, RKS-9, RKS-11, RCMS-3, RCMS-9, RPS-2	2.2.2. Electrical engineering	3,0
	GC -1, GC -3, GC -4, GC -15,	RKS -1, RKS-9, RKS -11,	2.2.3. Material Science	2,0

	SC -1, SC -4, SC -6, SC -10, SC -11, SC -13, SC -14	RCMS -3		
	GC -1, GC -2, GC -3, GC -6, GC -7, GC -8, GC -9, GC -12, GC -13, GC -14, GC -15, SC -1, SC -2, SC -3, SC -5, SC -7, SC -9, SC -10, SC -11, SC -13	RKS-1, RKS-2, RKS-3, RKS -5, RKS-7, RKS -8, RCMS-1, RCMS-2, RCMS-3, RCMS-4, RCMS-8, RPS-1, RPS-2	2.2.4. Technology of production of vegetable fats	6,0
	GC -1, GC -2, GC -3, GC -6, GC -7, GC -8, GC -9, GC -12, GC -13, GC -14, GC -15, SC -1, SC -2, SC -3, SC -5, SC -7, SC -9, SC -10, SC -11, SC -13	RKS-1, RKS-2, RKS-3, RKS-5, RKS-7, RKS-8, RCMS-1, RCMS-2, RCMS-3, RCMS-4, RCMS-8, RPS-1, RPS-2	2.2.5. Chemistry of lipids and their derivatives	4,0
	GC-1, GC-2, GC-3, GC-6, GC-7, GC-8, GC-9, GC-12, GC-13, GC-14, GC-15, SC-1, SC-2, SC-3, SC-5, SC-7, SC-9, SC-10, SC-11, SC-13	RKS-1, RKS-2, RKS-3, RKS-5, RKS-7, RKS-8, RCMS-1, RCMS-2, RCMS-3, RCMS-4, RCMS-8, RPS-1, RPS-2	2.2.6. Technology of production of animal fats	4,0
	GC-1, GC-2, GC 3, GC-6, GC-7, GC-8, GC-13, GC-15, SC-1, SC-3, SC-5, SC-7, SC-9, SC-11, SC-13	RKS-1, RKS-2, RKS-3, RCMS-1, RCMS-2, RCMS-3, RCMS-4, RCMS-8,	2.2.7. Theoretical foundations of food production technology	4,0
	GC-1, GC-2, GC-3, GC-7, GC-8, GC-15, SC-1, SC-5, SC-7, SC-11, SC-13	RKS-1, RKS-2, RKS-9 RCMS-1, RCMS-2, RCMS-3, RCMS-8,	2.2.8. Industry calculations, accounting and reporting	6,0

	GC-1, GC-2, GC-3, GC-6, GC-7, GC-8, GC-9, GC-12, GC-13, GC-14, GC-15, SC-1, SC-2, SC-3, SC-5, SC-7, SC-9, SC-10, SC-11, SC-13	RKS -1, RKS -2, RKS -3, RKS -5, RKS -7, RKS-8, RCMS-1, RCMS-2, RCMS-3, RCMS-4, RCMS-8, RPS-1, RPS-2	2.2.9. Vegetable fats processing technology	13,0
	GC-1, GC-3, GC-6, GC-7, GC-8, SC-1, SC-6, SC-9, SC-10, SC-11, SC-13, SC-14	RKS2, RKS -5, RKS-11, RCMS-3, RCMS-4	2.2.10. Technological equipment of the industry	5,0
	GC-1, GC-2, GC-3, GC-6, GC-7, GC-8, GC-13, GC-15, SC-1, SC-2, SC-3, SC-5, SC-6, SC-9, SC-10, SC-11, SC-13, SC-14	RKS-1, RKS-2, RKS-3, RKS -4, RKS-5, RKS-7, RKS-8, RCMS -1, RCMS-3, RCMS-4, RPS-1, RPS-2	2.2.11. Control of quality and safety of industry products	4,0
	GC-1, GC-2, GC-3, GC-4, GC-6, GC-7, GC-12, GC-14, GC-15, SC-1, SC-3, SC-4, SC-6, SC-7, SC-8, SC-10, SC-11, SC-14	RKS-1, RKS-2, RKS-3, RKS-4, RKS-7, RKS -9, RKS -10, RKS-11, RCMS-2, RCMS-3, RCMS-6, RCMS-7, RCMS-9	2.2.12. Fundamentals of industrial construction	5,0
	GC-1, GC-2, GC-3, GC-6, GC-7, GC-8, GC-9, GC-12, GC-13, GC-14, GC-15, SC-1, SC-2, SC-3, SC-5, SC-7, SC-9, SC-10, SC-11, SC-13	RKS-1, RKS-2, RKS-3, RKS-5, RKS-7, RKS-8, RCMS-1, RCMS-2, RCMS-3, RCMS-4, RCMS-8, RPS-1, RPS-2	2.2.13. Soap and detergent technology	5,0
	GC-1, GC-2, GC-3, GC-6, GC-7, GC-8, GC-13, GC-15, SC-1, SC-3, SC-7, SC-11	RKS-1, RKS-2, RCMS-1, RCMS-2, RCMS 3, RCMS-4	2.2.14. Food industry and food packaging industry	3,0
			<b>TOTAL1.2</b>	<b>175,0</b>

			<b>TOTAL</b>	<b>240,0</b>

**Table 4. Matrix of correspondence of program competences to educational components**

Code of discipline according to the curriculum	1.1.1	1.1.2	1.1.3	1.1.4	1.1.5	1.1.6	1.1.7	1.1.8	1.1.9	1.1.10	1.1.11	1.1.12	1.1.13	1.2.1	1.2.2	1.2.3	1.2.4	1.2.5	1.2.6	1.2.7	1.2.8	1.2.9	1.2.10	1.2.11	1.2.12	1.2.13	1.2.14	1.2.15	1.2.16	1.2.17	1.2.18	1.2.19	1.2.20	2.1.1	2.1.2	2.1.3	2.2.1	2.2.2	2.2.3	2.2.4	2.2.5	2.2.6	2.2.7	2.2.8	2.2.9	2.2.10	2.2.11	2.2.12	2.2.13	2.2.14									
INT	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+									
GC-1	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+								
GC-2	+			+				+	+					+		+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+								
GC-3		+			+		+	+	+	+	+	+	+			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+							
GC-4		+													+		+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+							
GC-5					+											+				+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+							
GC-6					+			+	+							+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+						
GC-7			+	+										+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+						
GC-8	+			+			+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+						
GC-9	+	+		+	+											+	+						+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+							
GC-10	+		+														+																																										
GC-11	+	+	+	+	+												+																																										
GC-12								+		+	+	+	+		+					+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+						
GC-13								+	+	+	+	+	+	+	+		+			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+				
GC-14										+						+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+				
GC-15							+	+	+		+	+	+				+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+				
SC -1							+	+	+		+	+	+			+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+				
SC -2							+	+	+	+	+	+	+			+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+				
SC -3											+	+	+			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			
SC -4					+											+	+	+																																							+		
SC -5									+							+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			
SC -6																+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			





### III - FORMS OF CERTIFICATES FOR HIGHER EDUCATION APPLICANTS

<p>Forms of attestation of applicants for higher education</p>	<p>The mandatory form of state certification is the implementation and protection of qualification (diploma) works (projects). The system of competencies and learning outcomes specified in Chapters IV and V. are subject to state certification. The main means of objective control of the degree of achievement of the final goals of education and professional training of masters is the technology of implementation and protection of qualification (diploma) works (projects), which is defined in the following documents: Regulations on EC, Guidelines for the implementation of qualification (diploma) projects (works) ).</p>
<p>Requirements for final qualification work (in the presence)</p>	<p>Requirements for the final qualification work are set out in the Guidelines for the implementation of qualification (diploma) projects (works). The final qualification work is accompanied by the review of the scientific supervisor and the reviewer's review, which are responsible for checking the completeness of the tasks, the quality of the work as a whole and its testing for plagiarism.</p>
<p>Certification / Uniform Qualification Exam Requirements (exams) (in the presence)</p>	
<p>Requirements for public protection (demonstration) (in the presence)</p>	<p>Requirements for public protection are formulated in the Regulations on EC and guidelines for the implementation of qualification (diploma) projects (works).</p>

#### IV - Requirements for having an internal quality assurance system for higher education

Determined in accordance with European Standards and Recommendations on Quality Assurance in Higher Education (ESG) and Article 16 of the Law of Ukraine "On Higher Education"

Components of the internal quality assurance system of higher education	Definitions, references and related documents
Principles and procedures for quality assurance in education	<ul style="list-style-type: none"> <li>- Law of Ukraine "On Higher Education" of 01.07.2014 № 1556-VII;</li> <li>- Provisional Regulation on the Organization of the Educational Process at the State Educational Institution of the State Pedagogical University of Ukraine</li> <li>- Regulations on diploma with honors of the State Pedagogical University of the State Pedagogical University (Order of the Rector of the State Pedagogical University of the State Pedagogical University of Ukraine from February 25, 2016 No. 55);</li> <li>- Regulations on the procedure for setting up and organizing the work of the examination commission at the State Educational Institution of the State Pedagogical University (Order of the Rector No. 68 of 01.04.2015, No. 68);</li> <li>- Regulations on the development of approval and revision of work programs of educational disciplines (Order of the Rector of the State Pedagogical University of the State Pedagogical University of Ukraine # 291 of 01.12.15)</li> </ul>
Monitoring and periodic review of educational programs	Annual monitoring of requirements of industry and labor market, review of educational programs, work curricula, work programs of educational disciplines. On approval of the composition of the project teams for the development of educational programs (Order of the Rector of the State Pedagogical University of the State Pedagogical University of Ukraine № 74, March 10, 2016)
Annual evaluation of	Regulations on the organization of the rectorial control

higher education applicants	of the quality of education (Order of the Rector of March 17, 2014 y. №78)
Annual evaluation of scientific-pedagogical and pedagogical staff of higher education institution	Regulations on the Rector's Control Commission of pedagogical skills of scientific and pedagogical workers of the University (Order of the Rector of the State Pedagogical University of the State Pedagogical University of 04.04.2016. №85), Procedure of application of the rating system of evaluation of the activity of scientific and pedagogical workers of the State Pedagogical University of the University of Pedagogical University of Ukraine .2011 № 147), Procedure of application of rating system of evaluation of activity of departments and faculties of SHEI USUCE (Rector's Order dated 04.06.2010 № 209). Regular publication of the results of such assessments on the official website of the institution of higher education, on information stands and in any other way.
Improvement of qualification of scientific-pedagogical, pedagogical and scientific workers	Improvement of qualification of scientific and pedagogical staff is carried out in accordance with the provision approved by the order of MESU dated 24.01.2013. №48 and the Regulations on professional development and training of pedagogical and scientific-pedagogical employees of the State Pedagogical University of the State Pedagogical University of Ukraine SHEI USUCE (The order of the rector of the SHEI USUCE dated 28.05.2016 №105)
Availability of necessary resources to organize the educational process	Educational and methodological, logistical and personnel support of the licensed conditions (Resolution of the CM dated December 30, 2015 № 1187) of educational activity. License Series AE № 636496. Certificates in areas of training and specialties.
Availability of information systems for effective management of the educational process	The Temporary Provision on the Organization of the Educational Process at the State Educational Institution of the State Educational Institution of Ukraine (Order of the Rector of the State Educational Institution of the State Educational Institution of the University of Ukraine №290) is supported by the Information-analytical system of control of the educational process, which consists of subsystems: Applicant, Educational process.
Publicity of	Information about educational programs, degrees of

information on educational programs, degrees of higher education and qualification	higher education and qualification is public and fully posted on the official web-portal of the University <a href="http://udhtu.com.ua">http://udhtu.com.ua</a>
Preventing and detecting academic plagiarism	Verification of completeness of tasks, quality of work as a whole and its check for plagiarism is carried out by the teacher – the leader of course or diploma work (project) in the established order using the appropriate software.