
**MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE**

**STATE BIOTECHNOLOGICAL UNIVERSITY**

# EDUCATIONAL AND PROFESSIONAL PROGRAMME «FOOD TECHNOLOGIES IN THE RESTAURANT INDUSTRY»

**HIGHER EDUCATION LEVEL – First**

**DEGREE OF HIGHER EDUCATION - Bachelor's degree**

**SPECIALITY - G13 (181) Food technologies**

**AREA OF KNOWLEDGE – G Engineering, production and construction (18 Production and technology)**

**EDUCATION QUALIFICATION – Bachelor's degree in food technology specialising in food technology in the restaurant industry**

**APPROVED BY THE ACADEMIC BOARD**
**of the State Biotechnological University**
**protocol № « » April 2025**
**implemented from «01» September 2025**

**Acting Rector** Andriy Kudryashov

**Kharkiv – 2025**

## PREFACE

Educational and Professional Programme (EPP) «Food Technologies in the Restaurant Industry» for training of Bachelor's degree students in the speciality G 13 (181) "Food Technologies" of the field of knowledge 18 G "Engineering, Production and Construction" (18 "Production and Technology") is a document that defines the goals of educational and professional training, the content of training, the place of a specialist in the structure of the national sector of the state economy, requirements for his/her competencies and other socially important properties and qualities.

DEVELOPED by the Department of Food Technologies in the Restaurant Industry of the State Biotechnological University

APPROVED by the Academic Board
of the State Biotechnological University
protocol № « » April 2025

IMPLEMENTED from «01» September 2025

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# 1. PROFILE OF THE EDUCATIONAL AND PROFESSIONAL PROGRAMME IN THE SPECIALITY 181 "FOOD TECHNOLOGY"

| 1. General description | |
|---|---|
| Full name of the higher education institution and structural department | State Biotechnological University<br><br>Faculty of Processing and Food Production |
| Higher education degree | Bachelor's degree<br>Bachelor's degree in food technology with a specialisation in food technology in the restaurant industry |
| Official name of the educational programme | Food technology in the restaurant industry |
| Type of diploma and duration of the educational programme | Bachelor's degree, duration of study 3 years 10 months.<br>The scope of the bachelor's degree programme is 240 ECTS credits.<br>At least 50% of the curriculum is aimed at ensuring general and special (professional) competencies in the speciality defined by the Higher Education Standard. |
| Accreditation status | Certificate of accreditation UD №21015708<br>dated 19 November 2021 |
| Cycle / level | NQS Ukraine – 6 level, FQ-EHEA – first cycle,<br>EQF-LLL – 6 level |
| Background. | A person has the right to obtain the first (bachelor's) level of higher education provided that he/she has a complete general secondary education and a junior bachelor's (specialist's) diploma, which is confirmed by a state-issued document issued by a higher education institution of the I-II accreditation level).<br>Admission conditions are determined by the "Rules of Admission to the State Biotechnological University" approved by the Academic Board |
| Languages of instruction | Ukrainian, English |
| The validity of the educational programme | Until 1 July 2026. |
| Internet address of the permanent placement of the description of the educational programme | http://btu.kharkov.ua/pro-universitet/osvitnya-diyalnist/osvitni-programi/ |
| **2. The purpose of the educational and professional programme** | |
| Training of highly educated specialists of a new formation, competitive in the domestic and international labour market, who have basic skills, general and professional competencies necessary to solve simple problems and understand the processes taking place in the restaurant industry. | |

| 3. Description of the educational and professional programme | |
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| Subject area (field of knowledge, speciality) | Production and technology<br>Food technology |
| Description of the subject area | *The objects* of study and activity of bachelor's in food technology are technological processes and food products.<br>*The aims* of the study are to develop the competences required for professional activities in the field of production and management of food quality and safety.<br>*Theoretical content of the subject area:*<br>- basic concepts and principles of design and functioning of the restaurant and food industry;<br>- knowledge of food quality and safety management systems, the essence and parameters of technological processes of food production, principles of developing new and improving existing food technologies;<br>- rules for applying the current legislative and regulatory base and a system for analysing marketing activities in production conditions.<br>*Methods, techniques and technologies (to be mastered by the higher education student for practical application):* a complex of organisational and technological measures to improve the efficiency of food industry enterprises, methods and techniques for quality control and food safety, planning and calculation of the need for material, financial and labour resources.<br>*Tools and equipment:* modern technological and laboratory equipment and devices, computer hardware and software. |
| Orientation of the educational and professional programme | Educational and professional |
| Focus of the educational and professional programme | The educational and professional programme is aimed at acquiring knowledge and skills in the restaurant and food industry and provides opportunities for further education and career development (master's programmes).<br>The programme allows students to gain knowledge of the basic concepts and principles of design and operation of food industry enterprises and restaurant establishments, to ensure the organisation and control of food quality and safety, the essence of technological processes of food production, the principles of developing new and improving existing technologies for the production of food products. |

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| Programme features | The educational and professional programme provides theoretical and practical training in the restaurant and food industry, the possibility of international internships, the use of modern technological and laboratory equipment, and the involvement of specialists in the educational process |
| **4 Recruitment of graduates and further education** | |
| Employability | Graduates are able to work professionally at industry enterprises, in the restaurant industry and in industry related companies of various types of activities and forms of ownership in accordance with the requirements of the labour market.<br>Further continuation of education at the second (master's) level of higher education in any field of knowledge, as well as advanced training and additional postgraduate education. |
| **5 Teaching and assessment** | |
| Teaching and learning | Student-centred (teacher-led and problem-based) learning, which is conducted in the form of lectures, seminars, workshops, consultations, coursework, self-study, based on textbooks, manuals, abstracts of periodicals, the use of the Internet, learning in the Moodle system, self-study, training, preparation of qualification work (project). |
| Assessment | *Assessment* is based on the 100-point ECTS scale, the national 4-point scale ("excellent", "good", "pass", "unsatisfactory") and verbal ("pass", "fail") systems.<br>*Types of control*: current and final (exam, test, practice reports, defence of coursework/projects, defence of qualification work). |
| **6 Programme competencies** | |
| Integral competence (IC) | The ability to solve complex specialized tasks and practical problems of technical and technological nature, which are characterized by the complexity and uncertainty under production conditions of food industry enterprises, restaurant business enterprises and during training process, which involves the application of theoretical foundations and methods of the food technologies. |
| General competences (GC) | C01. Knowledge and understanding of the subject area and professional activity.<br>C02. Ability to learn and master modern knowledge.<br>C03. Ability to show initiative and entrepreneurship.<br>C04. Skills in using information and communication |

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| | technologies.<br>C05. Ability to search and analyze information from various sources.<br>C06. Ability to assess and provide the quality of the performed work.<br>C07. Ability to work in a team.<br>C08. Ability to work autonomously.<br>C09. Skills of performing safe activities.<br>C10. The desire to preserve the environment.<br>C11. Ability to communicate in the state language both orally and in writing.<br>C12. Ability to communicate in a foreign language.<br>C13. Ability to realize 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, the rights and freedoms of a person and a citizen in Ukraine.<br>C14. Ability to preserve and multiply moral, cultural, scientific values and achievements of society on the base of 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 technologies, to use various types and forms of motor activity for healthy lifestyle providing. |
| Special (professional, subject) competences (SC) | C15. Ability to introduce food technology into production on the base of understanding the essence of the food raw material main components transformations during the technological process.<br>C16. Ability to manage technological processes with technical, information and software use.<br>C17. Ability to organize and conduct quality and safety control of raw material, semi-finished products and food products with modern methods use.<br>C18. Ability to provide the quality and safety of products on the base of relevant standards and within the framework of food safety management systems during their production and sale.<br>C19. Ability to develop new and improve existing food technologies with taking into account the principles of rational nutrition, resource saving and technological processes intensification.<br>C20. Ability to draw up business documentation and conduct technological and economic calculations.<br>C21. Ability to select and operate technological equip- |

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| | ment, to draw up equipment and technological schemes for the food products manufacturing.<br>C22. Ability to conduct research in the conditions of specialized laboratories for applied problems solving.<br>C23. Ability to design new or modernize existing productions (production sites).<br>C24. Ability to develop projects of regulatory documentation with current legal framework and reference materials use.<br>C25. Ability to develop and implement effective methods of work organization, to be responsible for the professional development of individuals and/or individuals groups.<br>C26. Ability to form a communication strategy in the field of food technology and the restaurant industry, to conduct a professional discussion.<br>C27. Ability to increase production efficiency, implement modern management systems. |
| **7 Programme learning outcomes (PLO)** | |
| | PLO01. To know and understand the basic concepts and trends of the restaurant industry, theoretical and practical problems in the field of food technologies.<br>PLO02. To show creative initiative and improve your professional level through continuing education and self-education.<br>PLO03. Applying information and communication technologies for professional activity information support and conducting applied research in the restaurant industry. |
| | PLO04. Searching and processing scientific and technical information from various sources and use it for solving specific technical and technological problems in the restaurant industry.<br>PLO05. To know the scientific basis of food production technological processes and patterns of physical and chemical, biochemical and microbiological transformations of the main components of food raw material during technological processing.<br>PLO06. To know and understand the main influencing factors on the synthesis and metabolism of food components and the role of nutrients in human nutrition.<br>PLO07. Organizing, controlling and managing technological processes of food processing into food products, including automation technical means and control systems use.<br>PLO08. Developing or improving high nutritional value food products technologies with taking into account global trends of the industry development.<br>PLO09. Developing technical specifications projects and technological instructions for food products.<br>PLO10. Implementing systems of quality management and food products safety.<br>PLO11. Determining the compliance of quality indices of raw materials, semi-finished products and finished products with regulatory requirements using mod- |

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| | ern methods of analysis (or control).<br>PLO12. To be able to design new and modernize existing enterprises, restaurants, shops, production sites with use computer-aided design systems and software.<br>PLO13. Choosing modern equipment for technical outfit of new or reconstructed enterprises (shops), restaurants, know the principles and rules of its operation, making hardware and technological production schemes of designed range food products.<br>PLO14. Increasing production efficiency by resource-saving and competitive technologies introducing, analyzing the state and dynamics of food products demand.<br>PLO15. Introducing modern management systems of the restaurant industry.<br>PLO16. Following safety rules and taking technical and organizational measures for safe working conditions organization during production activity.<br>PLO17. Waste disposal process organization and ecological safety of production providing.<br>PLO18. To have basic skills of conducting theoretical and / or experimental scientific research which are performed individually and / or as part of a scientific group.<br>PLO 19. Work efficiency increasing by combining independent and team work.<br>PLO20. Drawing up business documents in the state language.<br>PLO21. Presenting activity results in the field of food technologies (ideas, problems and their solutions, personal experience, etc.) to restaurant industry specialists and the general public.<br>PLO22. Carrying out business communications in the professional sphere in Ukrainian and foreign languages.<br>PLO23. To have the skills of work organizing the restaurant industry individual production units and their activity coordinating.<br>PLO24. Carrying out technological, technical, economic calculations under food products development and promotion to the consumer market; material resources accounting.<br>PLO25. To show creative initiative on the issues of economy market transformation.<br>PLO26. Forming and defending own worldview and public position, acting socially responsibly and consciously.<br>PLO27. Preserving and increasing the achievements and values of society, leading a healthy lifestyle. |
| **8 Resource support for the programme** | |
| Human resources support | The staffing of the educational and professional programme meets the licensing requirements.<br>The percentage of teachers who have an academic title and a scientific degree is at least 75%. The teaching staff undergoes advanced training every 5 years with a total volume of at least 6 ECTS credits (180 hours) |

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| Material and technical support | The total area of the university is 47,994,446.53 $m^2$ (including: buildings, structures, grounds - 342,169.53 $m^2$; land, arable land, pastures, hayfields, forest land - 47,312,277.00 $m^2$; water bodies, swamps - 340,000.00 $m^2$), the area of the university used for the educational process is 47,856,166.32 $m^2$ (including: buildings, constructions - 203,889.32 $m^2$; lands, arable land, pastures, hayfields, forest lands - 47,312,277.00 $m^2$; water bodies, swamps - 340,000.00 $m^2$).<br>The total area occupied by the Department of Food Technologies in the Restaurant Industry is 626.3 $m^2$<br>To ensure the educational process, the department's specialised laboratories are used: laboratory of theoretical food technologies, laboratory of rheological research, laboratory of food product development and research, laboratory of information and communication technologies, laboratory of sensory evaluation of food products.<br>The dormitory provision for higher education students is 100%.<br>The IT training is provided at the Centre of New Information Technologies. Classrooms are equipped with modern machinery, which is integrated into a local network and connected to the INTERNET.<br>School buildings have appropriate conditions for catering for employees and students.<br>Students have free wireless access to the Internet.<br>The level of multimedia technical equipment is sufficient for the educational process. |
| Information, training and methodological support | - official website: http://btu.kharkov.ua/;<br>- wireless Internet access;<br>- unlimited access to the Internet;<br>- scientific library, reading rooms;<br>- virtual learning environment Moodle;<br>- repository.<br>All educational components have full information and methodological support, including library collections and electronic resources. |
| **9 Academic mobility** | |
| National mobility | All students have the opportunity to attend individual courses in partner universities within the framework of national academic mobility, study for a semester with further recognition of the results and credit transfer.<br>The principles of academic mobility are determined by the legislation of Ukraine. |

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| | The possibility of studying in several specialities or in several universities at the same time is determined by the legislation of Ukraine. |
| International mobility | The principles of international academic mobility are determined by the legislation of Ukraine, other countries and agreements between states.<br>Every student has the opportunity to get their credits/terms of study recognised. |
| Training of foreign higher education students | The programme provides training opportunities for foreign citizens |

## 2 LIST OF COMPONENTS OF THE EDUCATIONAL AND PROFESSIONAL PROGRAMME

2.1 List of components of the EPP

| Code | Components of the educational and professional programme (academic disciplines, course projects, internships, qualification work) | Credit score | Final control form |
|---|---|---|---|
| **Mandatory components of the EPP** | | | |
| MC 1.1 | Ukrainian (for professional purposes) | 3 | credit |
| MC 1.2 | Foreign language | 6 | credit |
| MC 1.3 | Mathematics | 4 | exam |
| MC 1.4 | Physics | 4 | exam |
| MC 1.5 | Food chemistry. Chapter 1 | 4 | exam |
| MC 1.6 | Food chemistry. Chapter 2 | 4 | exam |
| MC 1.7 | Food chemistry. Chapter 3 | 4 | |
| MC 1.8 | Engineering and computer graphics | 3 | credit |
| MC 1.9 | Professional language and business communication | 3 | credit |
| MC 1.10 | Information and communication technologies | 4 | exam |
| MC 1.11 | Methods of food product control | 3 | credit |
| MC 1.12 | Business foreign language | 4 | credit differential |
| MC 1.13 | Biochemistry | 4 | exam |
| MC 1.14 | Technical microbiology | 4 | exam |
| MC 1.15 | Food production processes and equipment | 5 | exam |
| MC 1.16 | Theoretical foundations of food technology | 8 | exam |
| MC 1.17 | Food technologies. Chapter 1 | 4 | exam |
| MC 1.18 | Food technologies. Chapter 2 | 4 | exam |
| MC 1.19 | Food technologies. Chapter 3 | 4 | exam, CP |

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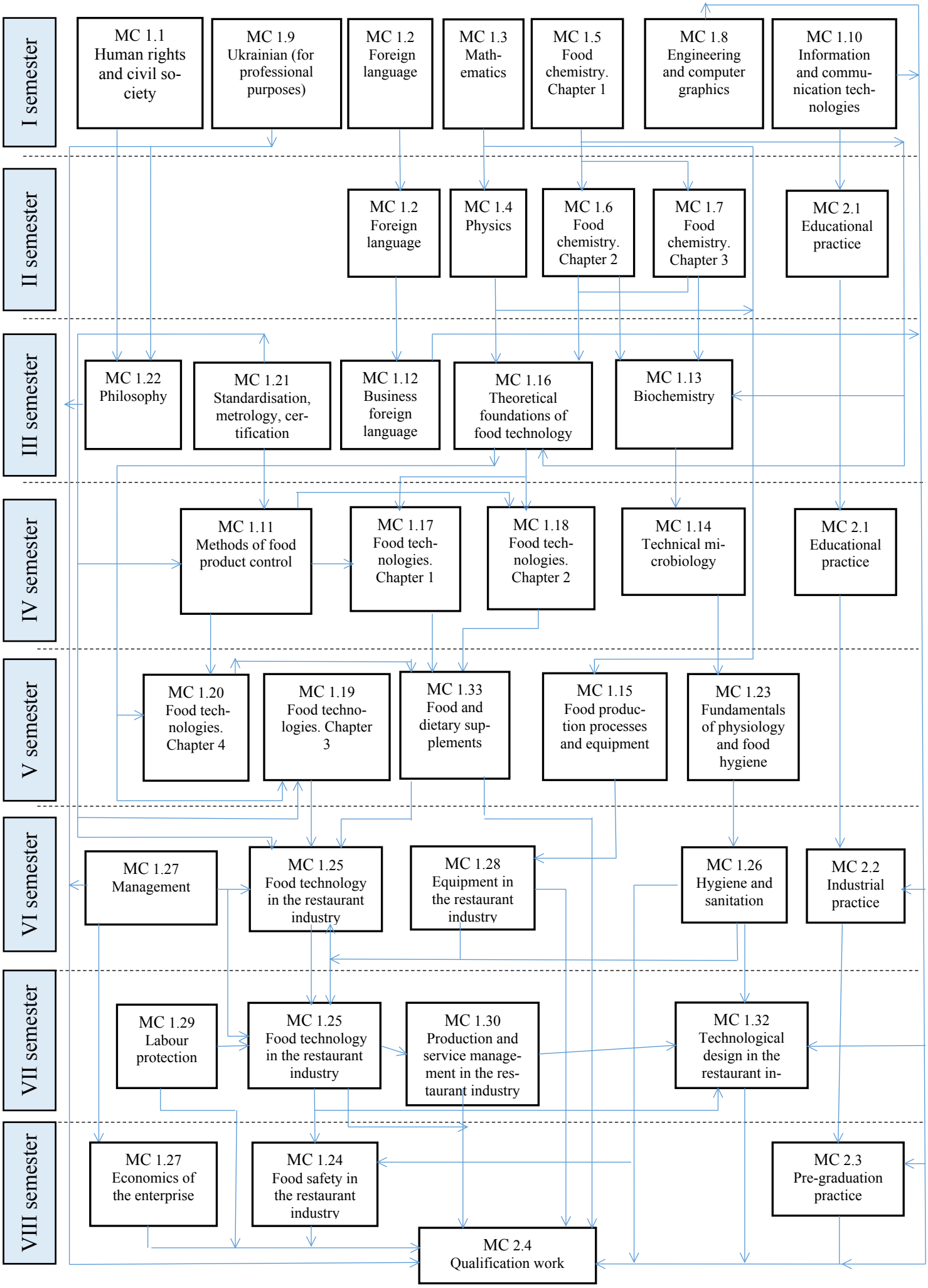
| MC 1.20 | Food technologies. Chapter 4 | 4 | exam |
| MC 1.21 | Standardisation, metrology, certification | 4 | exam |
| MC 1.22 | Philosophy | 4 | credit |
| MC 1.23 | Fundamentals of physiology and food hygiene | 3 | credit |
| MC 1.24 | Food safety in the restaurant industry | 5 | exam |
| MC 1.25 | Food technology in the restaurant industry | 14 | exam, CP |
| MC 1.26 | Hygiene and sanitation | 3 | credit |
| MC 1.27 | Economics of enterprises | 4 | exam |
| MC 1.28 | Equipment in the restaurant industry | 5 | exam |
| MC 1.29 | Labour protection in the industry | 3 | credit |
| MC 1.30 | Production and service management in the restaurant industry | 5 | exam |
| MC 1.31 | Management | 3 | credit |
| MC 1.32 | Technological design in the restaurant industry | 6 | exam, CP |
| MC 1.33 | Food and dietary supplements | 5 | exam |
| MC 2.1 | Educational practice | 12 | credits |
| MC 2.2 | Industrial practice | 6 | credit |
| MC 2.3 | Pre-graduation practice | 3 | credit differential |
| MC 2.4 | Qualification work (project) | 12 | EC certification |
| **The total amount of mandatory components:** | | **180** | |
| **Selected components of the EPP** | | | |
| **Total amount of selected components:** | | **60** | |
| **TOTAL AMOUNT OF THE EDUCATIONAL AND PROFESSIONAL PROGRAMME** | | **240** | |

# 2.2 Flowchart of the EPP structure



## 3 FORM OF ATTESTATION OF HIGHER EDUCATION STUDENTS

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| Forms of attestation of higher education students | The final attestation is carried out on the basis of the assessment of learning outcomes and the level of competencies, this educational and professional programme in the form of a public defence of the qualification work. |
| Requirements for qualification work and the procedure for its defence | The qualification work involves the individual solution of a specialised problem of a technological, design or research character.<br>Academic plagiarism, falsification and cheating are not allowed in the qualification paper. The procedure for checking for plagiarism is determined by SBTU and is carried out through the Strikeplagiarism software.<br>The qualification paper must be published in the SBTU repository. The procedure and requirements for publication are determined by the SBTU. |

## 4. REQUIREMENTS FOR THE AVAILABILITY OF AN INTERNAL QUALITY ASSURANCE SYSTEM FOR HIGHER EDUCATION

The system of internal quality assurance of educational activities and the quality of higher education (internal quality assurance system) at the State Biotechnological University provides for the implementation of the following procedures and measures provided for by the Law of Ukraine " About Higher Education":

1) defining the principles and procedures for ensuring the quality of higher education;

2) monitoring and periodic review of educational and professional programmes;

3) annual evaluation of students, research and teaching staff of the university and regular publication of the results of such evaluations on the official website of the university, on information stands, etc;

4) providing advanced training for research and teaching staff;

5) ensuring the availability of the necessary resources for the educational process, including individual work of students, for each educational programme;

6) ensuring the availability of information systems for effective management of the educational process;

7) ensuring publicity of information about educational programmes, degrees of higher education and qualifications;

8) ensuring an effective system for preventing and detecting academic plagiarism in the scientific papers of university employees and students;

9) other procedures and measures.

The university's system for ensuring the quality of educational activities and the quality of higher education (internal quality assurance system) is evaluated by the National Agency for Quality Assurance in Higher Education or its accredited independent institutions for evaluation and quality assurance of higher education for its compliance with the requirements of the quality assurance system of higher education approved by the National Agency for Quality Assurance in Higher Education and international quality assurance standards and recommendations.

**Table 1**

Matrix of compliance of the competences defined by the standard
with the descriptors of the National Qualifications System (NQS) of Ukraine

| **Classification of competences according to the National Qualifications System of Ukraine** | **Know-ledge** | **Skills** | **Communic-ation** | **Autonomy and responsibility** |
|---|---|---|---|---|
| **General competences** | | | | |
| C01. Knowledge and understanding of the subject area and professional activity. | + | | | + |
| C02. Ability to learn and master modern knowledge. | + | | | |
| C03. Ability to show initiative and entrepreneurship. | | + | | + |
| C04. Skills in using information and communication technologies. | | + | + | |
| C05. Ability to search and analyze information from various sources. | + | + | + | |
| C06. Ability to assess and provide the quality of the performed work. | + | + | | + |
| C07. Ability to work in a team. | | | + | |
| C08. Ability to work autonomously. | + | + | + | + |
| C09. Skills of performing safe activities. | | | | + |
| C10. The desire to preserve the environment. | + | + | | + |
| C11. Ability to communicate in the state language both orally and in writing. | | + | + | |
| C12. Ability to communicate in a foreign language. | | + | + | |
| C13. Ability to realize 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, the rights and freedoms of a person and a citizen in Ukraine. | + | | | + |
| C14. Ability to preserve and multiply moral, cultural, scientific values and achievements of society on the base of 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 technologies, to use various types and forms of motor activity for healthy lifestyle providing. | + | + | | + |

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| C15. Ability to introduce food technology into production on the base of understanding the essence of the food raw material main components transformations during the technological process. | + | + | | + |
| C16. Ability to manage technological processes with technical, information and software use. | + | + | + | + |
| C17. Ability to organize and conduct quality and safety control of raw material, semi-finished products and food products with modern methods use. | + | + | | + |
| C18. Ability to provide the quality and safety of products on the base of relevant standards and within the framework of food safety management systems during their production and sale. | + | + | | + |
| C19. Ability to develop new and improve existing food technologies with taking into account the principles of rational nutrition, resource saving and technological processes intensification. | + | + | + | + |
| C20. Ability to draw up business documentation and conduct technological and economic calculations. | + | + | | + |
| C21. Ability to select and operate technological equipment, to draw up equipment and technological schemes for the food products manufacturing. | + | + | | |
| C22. Ability to conduct research in the conditions of specialized laboratories for applied problems solving. | + | + | + | + |
| C23. Ability to design new or modernize existing productions (production sites). | + | + | | + |
| C24. Ability to develop projects of regulatory documentation with current legal framework and reference materials use. | + | + | + | |
| C25. Ability to develop and implement effective methods of work organization, to be responsible for the professional development of individuals and/or individuals groups. | + | + | + | + |
| C26. Ability to form a communication strategy in the field of food technology and the restaurant industry, to conduct a professional discussion. | | + | + | |
| C27. Ability to increase production efficiency, implement modern management systems. | + | + | + | + |

**Table 2**

## Matrix of correspondence between learning outcomes and competences defined by the EPP

| Programme learning outcomes | Integral | Competences | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | General competences | | | | | | | | | | | | | Special (professional) competences | | | | | | | | | | | | | | |
| | | C01 | C02 | C03 | C04 | C05 | C06 | C07 | C08 | C09 | C010 | C011 | C012 | C013 | C014 | C015 | C016 | C017 | C018 | C019 | C020 | C021 | C022 | C023 | C024 | C025 | C026 | C027 |
| PLO01. To know and understand the basic concepts and trends of the restaurant industry, theoretical and practical problems in the field of food technologies. | + | + | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PLO02. To show creative initiative and improve your professional level through continuing education and self-education. | + | | + | + | | | | | | | | | | | | | | | | | | | | | | | | |
| PLO03. Applying information and communication technologies for professional activity information support and conducting applied research in the restaurant industry. | + | | | | + | | | | | | | | | | | | | | | | | | + | | | | | |
| PLO04. Searching and processing scientific and technical information from various sources and use it for solving specific technical and technological problems in the restaurant industry. | + | | | | | | + | | | | | | | | | | | | | | | | | | | | | |
| PLO05. To know the scientific basis of food production technological processes | + | | | | | | | | | | | | | | | + | | | | | | | | | | | | |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| and patterns of physical and chemical, biochemical and microbiological transformations of the main components of food raw material during technological processing. | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PLO06. To know and understand the main influencing factors on the synthesis and metabolism of food components and the role of nutrients in human nutrition. | + | | | | | | | | | | | | | | | | | | + | | | | | | | | | |
| PLO07. Organizing, controlling and managing technological processes of food processing into food products, including automation technical means and control systems use. | + | | | | | | | | | | | | | | | + | + | | | | | | | | | | | |
| PLO08. Developing or improving high nutritional value food products technologies with taking into account global trends of the industry development. | + | | | | | | | | | | | | | | | | | | + | | | | | | | | | |
| PLO09. Developing technical specifications projects and technological instructions for food products. | + | | | | | | | | | | | | | | | | | | | + | | | | + | | | | |
| PLO10. Implementing systems of quality management and food products safety. | + | | | | | | + | | | | | | | | | | | | | | + | | | | | | | |
| PLO11. Determining the compliance of quality indices of raw materials, semi-fin- | + | | | | | | | | | | | | | | | | | + | | | | | | | | | | |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ished products and finished products with regulatory requirements using modern methods of analysis (or control). | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PLO12. To be able to design new and modernize existing enterprises, restaurants, shops, production sites with use computer-aided design systems and software. | + | | | | | | | | | | | | | | | | | | | | | + | | + | | | | |
| PLO13. Choosing modern equipment for technical outfit of new or reconstructed enterprises (shops), restaurants, know the principles and rules of its operation, making hardware and technological production schemes of designed range food products. | + | | | | | | | | | | | | | | | | | | | | | + | | | | | | |
| PLO14. Increasing production efficiency by resource-saving and competitive technologies introducing, analyzing the state and dynamics of food products demand. | + | | | | | | | | | | | | | | | | | | | | | | | | | | | + |
| PLO15. Introducing modern management systems of the restaurant industry. | + | | | | | | | | | | | | | | | | | | | | | | | | | | | + |
| PLO16. Following safety rules and taking technical and organizational measures for safe working conditions organization during production activity. | + | | | | | | | | | + | | | | | | | | | | | | | | | | + | | |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PLO17. Waste disposal process organization and ecological safety of production providing. | + | | | | | | | | | | + | | | | | | | | | | | | | | | | | |
| PLO18. To have basic skills of conducting theoretical and / or experimental scientific research which are performed individually and / or as part of a scientific group. | + | | | | | | | + | + | | | | | | | | | | + | | | | | | | | | |
| PLO 19. Work efficiency increasing by combining independent and team work. | + | | | | | | | + | + | | | | | | | | | | | | | | | | | | | |
| PLO20. Drawing up business documents in the state language. | + | | | | | | | | | | | + | | | | | | | | | | | | | | | | |
| PLO21. Presenting activity results in the field of food technologies (ideas, problems and their solutions, personal experience, etc.) to restaurant industry specialists and the general public. | + | | | | | | | | | | | + | | | | | | | | | | | | | | | + | |
| PLO22. Carrying out business communications in the professional sphere in Ukrainian and foreign languages. | + | | | | | | | | | | | | + | | | | | | | | | | | | | | | |
| PLO23. To have the skills of work organizing the restaurant industry individual production units and their activity coordinating. | + | | | | | | | | | | | | | | | | | | | | | | | | | + | | |
| PLO24. Carrying out technological, technical, economic calculations under food | + | | | | | | | | | | | | | | | | | | | | + | | | | | | | + |

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| products development and promotion to the consumer market; material resources accounting. | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PLO25. To show creative initiative on the issues of economy market transformation. | + | | | + | | | | | | | | | | | | | | | | | | | | | | | | + |
| PLO26. Forming and defending own worldview and public position, acting socially responsibly and consciously. | + | | | | | | | | | | | | | + | | | | | | | | | | | | | | |
| PLO27. Preserving and increasing the achievements and values of society, leading a healthy lifestyle. | + | | | | | | | | | | | | | | + | | | | | | | | | | | | | |

**Table 3**

## Matrix of ensuring the programme learning outcomes (PLO) with the relevant components of the educational and professional programme

| Code | PLO01 | PLO02 | PLO03 | PLO04 | PLO05 | PLO06 | PLO07 | PLO08 | PLO09 | PLO10 | PLO11 | PLO12 | PLO13 | PLO14 | PLO15 | PLO16 | PLO17 | PLO18 | PLO19 | PLO20 | PLO21 | PLO22 | PLO23 | PLO24 | PLO25 | PLO26 | PLO27 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Normative components | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MC 1.1 | | + | | | | | | | | | | | | | | | | | | | | | | | | + | + |
| MC 1.2 | | | | | | | | | | | | | | | | | | | | | | + | | | | | |
| MC 1.3 | | | | + | | | | | | | | | | | | | | + | | | | | | | | | |
| MC 1.4 | | | | | | | | | | | | | | | | | | + | | | | | | | | | |
| MC 1.5 | | | | + | | + | | + | | | | | | | | | | + | | | | | | | | | |
| MC 1.6 | | | | + | | + | | + | | | | | | | | | | + | | | | | | | | | |
| MC 1.7 | | | | + | | + | | + | | | | | | | | | | + | | | | | | | | | |
| MC 1.8 | | | + | + | | + | | + | | | | + | + | | | | | | | | | | | | | | |
| MC 1.9 | | | | | | | | | | | | | | | | | | | | + | | + | | | | | |
| MC 1.10 | | | + | | | | | | | | | | | | | | | | | | + | | | | | | |
| MC 1.11 | | | | | | | + | | | | + | | | | | | | | | | | | | | | | |
| MC 1.12 | | + | | | | | | | | | | | | | | | | | | | | + | | | | | |
| MC 1.13 | | | | | + | | + | | | | | | | | | | | | | | | | | | | | |
| MC 1.14 | | | | | + | | + | | | | | | | | | | | | | | | | | | | | |
| MC 1.15 | | | | | + | | + | | | | | + | + | | | | | | | | | | | | | | |
| MC 1.16 | + | | | | + | + | + | + | | | | | | | | | | | + | | | | | | | | |
| MC 1.17 | + | | | | + | + | + | + | | | + | | | + | | | + | | | | | | | | | | |

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| MC 1.18 | + | | | | + | + | + | + | | | + | | | + | | | + | | | | | | | | | | |
| MC 1.19 | + | | + | | + | + | | | | | | + | | | | + | | | | + | | | | | | | |
| OK 1.20 | + | | | | + | + | + | + | | | + | | | + | | | + | | | | | | | | | | |
| MC 1.21 | | | | + | | | | | + | + | + | | | | | | | | | | | | | | | | |
| MC 1.22 | | + | | | | | | | | | | | | | | | | | | | | | | | | + | + |
| MC 1.23 | | | | | | + | | + | | | | | | | | | | | | | | | | | | | + |
| MC 1.24 | + | | | | + | | + | | | + | + | | | | | + | + | | | | | | | | | | |
| MC 1.25 | + | | + | + | + | + | | + | | | + | | | + | | | | + | | | | | | | + | | |
| MC 1.26 | | | | | | | | | | | | | | | | | | | + | | | | | | | | + |
| MC 1.27 | | | | | | | | | | | | | | | | | | | | | | | | | + | + | |
| MC 1.28 | | | | + | | | | | | | | + | + | | | | | | | | | | | | + | | |
| MC 1.29 | | | | | | | | | | | | | | | | + | | | | | | | | | | | |
| MC 1.30 | + | | | | | | | | | | | | | | + | + | + | | | | | | | + | + | | |
| MC 1.31 | | | | | | | | | | | | | | | + | | | | | | | | | + | | | |
| MC 1.32 | | | | + | | | | | | | | + | + | | + | | | | | | + | | | | | | |
| MC 1.33 | + | | | | + | + | | + | | | | | | | | | | + | | | | | | | | | |
| MC 2.1 | | + | + | | | | | | | | | | | | | + | | | + | | | | + | | | | |
| MC 2.2 | | + | + | | | | | | | | | | | | | + | | | + | | | | + | | | | |
| MC 2.3 | | + | + | | | | | | | | | | | | | + | | | + | | | | + | | | | |
| MC 2.4 | | | + | + | + | | + | | + | | | + | + | | | | | + | + | | + | + | | + | + | + | |

**Table 4**

## Matrix of providing programme competences with relevant components of the educational and professional programme

| Code | IC | General competences | | | | | | | | | | | | | | Special (professional, subject) competences | | | | | | | | | | | | |
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| | | GC01 | GC02 | GC03 | GC04 | GC05 | GC06 | GC07 | GC08 | GC09 | GC10 | GC11 | GC12 | GC13 | GC14 | SC15 | SC16 | SC17 | SC18 | SC19 | SC20 | SC21 | SC22 | SC23 | SC24 | SC25 | SC26 | SC27 |
| MC 1.1 | + | + | | + | + | | | | | | | | | | | | | | | | | + | | | | | | |
| MC 1.2 | + | + | + | | | | + | | | | | | | | | | | | | | | + | + | | | | | |
| MC 1.3 | + | + | + | + | | + | + | | + | + | | + | | + | | | | | + | | | | + | | | | | |
| MC 1.4 | + | + | + | + | | + | + | | + | + | | + | + | + | | | + | | | | | | + | + | | | | |
| MC 1.5 | + | + | + | + | | + | + | | + | | + | | + | + | + | | + | | | | | + | + | | + | + | | |
| MC 1.6 | + | + | + | + | | + | + | | + | | + | | + | + | + | | + | | | | | + | + | | + | + | | |
| MC 1.7 | + | + | + | + | | + | + | | + | | + | | + | + | + | | + | | | | | + | + | | + | + | | |
| MC 1.8 | + | + | | + | + | | + | | + | | | + | | | | | | | | | + | | + | | | | | |
| MC 1.9 | + | + | + | | | | + | | | | | | | | | | | | | | | + | + | | | | | |
| MC 1.10 | + | + | + | | + | | | | | | | + | | | | | | | + | | | | | + | | | | |
| MC 1.11 | + | + | + | + | + | + | + | + | | | | | | | + | + | + | | | | | | | | + | | | |
| MC 1.12 | + | + | + | | | | + | | | | | | | | | | | | | | | + | + | | | | | |

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| MC 1.13 | + | + | | + | | | + | + | | | | | | + | | + | + | | | | | | + | | | | | |
| MC 1.14 | + | + | + | + | + | + | + | + | + | + | + | | + | + | + | + | + | + | + | + | | | + | + | | | | |
| MC 1.15 | + | + | + | + | + | + | + | + | | | | | + | + | | + | + | + | | + | + | | + | + | + | | + | + |
| MC 1.16 | + | + | | | | | + | | | | + | | | + | | + | | | | | | | | | | + | | |
| MC 1.17 | + | + | + | + | + | + | + | | | | | | | | | | + | | | + | | | + | | | + | | |
| MC 1.18 | + | + | + | + | + | + | + | | | | | | | | | | + | | | + | | | + | | | + | | |
| MC 1.19 | + | + | + | | + | | | | | | | | | | | + | + | + | + | | + | | | | | | | |
| OK 1.20 | + | + | + | + | + | + | + | | | | | | | | | | + | | | + | | | + | | | + | | |
| MC 1.21 | + | + | + | | | + | + | | | | | | | + | + | | + | + | | | | + | | | | | | |
| MC 1.22 | + | + | | + | | + | | | | | | | | | | | | | | | | | + | | | | | |
| MC 1.23 | + | + | | + | | + | + | + | + | | | | | + | | | | | | | | | | | | | | |
| MC 1.24 | + | | | | | | + | + | | + | | | | | | | + | + | + | | | | + | | | | | |
| MC 1.25 | + | + | + | | + | + | | | | | | | | | | + | + | | | + | | + | + | | + | | | |
| MC 1.26 | + | + | | + | | + | + | + | + | | | | | + | | | | | | | | | | | | | | |
| MC 1.27 | + | + | + | + | + | + | + | | | + | + | | | + | + | | | | + | + | | + | + | + | | + | + | + |
| MC 1.28 | + | + | + | + | + | + | + | | | | + | | | | | | + | | | + | | + | + | | | | | |
| MC 1.29 | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| MC | + | + | + | + | | | + | | | | | | | | | | + | | | | | | | | | + | | + |

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| 1.30 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MC 1.31 | + | + | + | + | | | + | + | + | | | | | | | | + | | | | | | | | | | | + |
| MC 1.32 | + | + | + | + | + | + | | | | | | | | | | | + | | | + | | + | + | | | | | |
| MC 1.33 | + | + | + | + | | | + | | | + | | | | | | + | + | | | + | | | | | | | | |
| MC 2.1 | + | | | | + | + | + | + | + | + | + | + | | | | + | + | + | | + | | | + | | | + | | + |
| MC 2.2 | + | | + | + | + | + | + | + | + | + | + | + | | | | + | | + | + | + | + | + | + | + | + | + | | + |
| MC 2.3 | + | + | + | + | + | + | + | + | + | + | + | + | | | | + | + | + | | + | + | + | + | + | + | + | + | + |
| MC 2.4 | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |