



**MINISTER
OF EDUCATION, SCIENCE AND SPORT OF THE REPUBLIC OF LITHUANIA**

ORDER

ON APPROVAL OF THE DESCRIPTOR OF THE STUDY FIELD OF FOOD STUDIES

19 October 2022 No V-1665

Vilnius

In accordance with Paragraph 11 of Article 53 of the Law on Higher Education and Research of the Republic of Lithuania:

1. I approve the Descriptor of the Study Field of Food Studies (enclosed).
2. I determine that the higher education institutions have to adjust their study programmes to the Descriptor of the Study Field of Food Studies approved by Clause 1 hereby until 1 September 2023.

Minister of Education, Science and Sport

Jurgita Šiugždinienė

APPROVED BY
Order No V-1665 of the Minister of Education, Science and Sport
of the Republic of Lithuania of 19 October 2022

DESCRIPTOR OF THE STUDY FIELD OF FOOD STUDIES

CHAPTER I GENERAL PROVISIONS

1. The Descriptor of the study field of Food Studies (hereinafter referred to as the “Descriptor”) regulates the special requirements for the study programmes in the study field of Food Studies. The Descriptor regulates the studies in the study field of Food Studies in the scope not covered by the General Requirements for the Provision of Studies approved by Order No V-1168 of the Minister of Education, Science and Sport of the Republic of Lithuania of 30 December 2016 “On Approval of General Requirements for the Provision of Studies”.

2. The Descriptor has been prepared in accordance with the Professional Standard for Agriculture, Forestry, Fisheries, Veterinary Medicine and Food Production approved by Order No VI-67 of the Director of the Qualifications and Vocational Education and Training Development Centre of 14 May 2020 “On the Approval of the Professional Standard for Agriculture, Forestry, Fisheries, Veterinary Medicine and Food Production”, and in line with the standards, criteria and recommendations for Food Study Programmes of the ISEKI-Food Association (*European Quality Assurance for Food Studies Programmes: Food Science and Technology. Procedures, Criteria and Standards. ISEKI-Food Association, 2018*).

3. The requirements of the Descriptor shall apply to first and second cycle university study programmes, both full-time and part-time.

4. The Descriptor does not set out any specific requirements for the admission to first cycle studies.

5. Higher education institutions offering second cycle studies must assess applicants’ readiness for second cycle studies in the study field of Food Studies and specify in the admission rules which fields of study or programmes guarantee applicants direct admission to the second cycle studies, and which may require to complete bridging studies.

6. Studies may be carried out in the framework of two-field first cycle study programmes and interdisciplinary first cycle and second cycle study programmes, organised in combination with study fields of Agriculture, Veterinary Medicine, Health, Engineering, Technology, Physical Sciences, Life Sciences, Informatics, Social Sciences and other groups of fields of study, where the qualifications awarded complement each other with the competences acquired in each field.

7. The aim of studies in the study field of Food Studies is to train highly qualified food professionals capable of organising, carrying out and controlling processes of quality, safe and healthful food handling processes, assessing the impact of these processes on the environment and society, who pay particular attention to the principles of sustainability and work to strengthen the public’s healthy eating skills.

8. The first cycle of studies focuses on general and specialised food studies education, theoretical training and professional skills development.

9. The second cycle of studies must prepare students for independent research or practical work requiring scientific knowledge of food studies and analytical skills.

10. Graduates are awarded a Bachelor’s/Master’s degree in Agricultural sciences corresponding to the sixth/seventh level of the Lithuanian Qualifications Framework and the European Qualifications Framework for Lifelong Learning, and the first/second level of the European Qualifications Framework in the European Higher Education Area, as attested by the Bachelor’s/Master’s diploma and the diploma supplement issued by the higher education institution.

CHAPTER II

CONCEPT AND SCOPE OF THE STUDY FIELD

11. Studies in the study field of Food Studies cover primary products and food management (food production, preparation, processing, packaging, storage, preservation, transport, distribution, supply, marketing, sale, and factors that can affect food safety, quality and nutritional value), and particular attention is paid to sustainable production, circular economy principles and healthy eating.

12. Food professionals organise, execute and control the management of primary products and food, model technological processes for the production of new raw materials and products, carry out research on the quality indicators of food raw materials and products, and take decisions on the selection, optimisation, modelling and development of new products, taking into account the safety of the latter and the consumer's expectation of healthful, high-added-value products, as well as the environmental impact of production.

13. Graduates can work in food processing and catering companies, in the agricultural sector, in the civil service, in educational institutions and research and study institutions, in research and technological development and production companies, as well as create new businesses, etc.

14. The interests of studies in the study field of Food are related to agronomy, veterinary science, animal science, environmental engineering, chemical engineering, public health, chemistry, biochemistry, informatics, biology, microbiology, biotechnology, genetics, botany, zoology, ecology, environmental science, management, economics and other fields.

CHAPTER III

GENERAL AND SPECIAL LEARNING OUTCOMES

15. The following section contains the general and specific learning outcomes for study programmes in the study field of Food Studies, but they do not constitute a specification of the detailed curriculum of a specific study programme or subjects.

16. The following learning outcomes must be achieved upon completion of first cycle studies:

16.1. knowledge and its application. The person:

16.1.1. understands and is able to explain primary production and food handling processes and their impact on the quality of raw materials and products, the environment and society, and is able to apply this knowledge in professional practice;

16.1.2. has knowledge of the physicochemical characteristics, chemical composition, nutritional value and physicochemical and microbiological processes of raw materials and foodstuffs;

16.1.3. understands and is able to explain raw materials and food handling processes, equipment and technologies and applies knowledge in modelling production systems;

16.1.4. is able to apply coherent nutritional knowledge to consumer food selection and understands the principles of healthful nutrition;

16.2. research skills. The person:

16.2.1. is able to plan and carry out food raw material and product quality studies, modelling experiments on raw materials and food handling processes and present conclusions;

16.2.2. is able to select and apply statistical analysis methods to assess the impact of raw materials and food handling processes on the safety, quality and nutritional value of food;

16.2.3. is able to interpret objectively the results of experiments on the analysis of raw materials and food handling processes, and to locate and organise relevant professional and scientific information in databases and other reliable sources of information;

16.3. special abilities. The person:

16.3.1. is able to select and apply appropriate raw materials, equipment, tools, processes and techniques for the handling of food raw materials and products, and pays particular attention to the application of sustainable production principles;

16.3.2. is able to solve problems related to the handling of raw materials and food, and pays particular attention to food safety, sustainability of production and healthful diet;

16.3.3. is able to organise food business activities;

16.3.4. is able to organise and carry out optimisation of the production of raw materials and products in the food business in a timely manner;

16.3.5. is able to develop new raw materials and products for food business and select equipment and processes to produce safer, more sustainable and healthier raw materials and products;

16.3.6. understands and is able to apply Hazard analysis and critical control points, and other food quality management systems.

16.4. personal and social abilities. The person:

16.4.1. is able to work effectively independently and as part of a team, and organise and manage food business activities;

16.4.2. is able to communicate with food chain professionals and the general public;

16.4.3. understands the impact of food business activities on society and the environment, observes professional ethics, and is aware of the responsibility for providing quality, safe and wholesome produce to consumers;

16.4.4. understands the potential links between raw materials and food handling processes and environmental, economic and climate change impacts;

16.4.5. understands the importance of and prepares for individual lifelong learning.

17. The following learning outcomes must be achieved upon completion of second cycle studies:

17.1. knowledge and its application. The person:

17.1.1. has an understanding of the physicochemical and microbiological changes in raw materials and products produced by a food business, risk management for food safety, technology modelling, production planning and design for the development of new, safe and healthful products that meet the needs of modern society;

17.1.2. has knowledge of the fundamentals of a successful business: the economic and managerial fundamentals of food business development, organisation, planning and human resource management;

17.1.3. understands and applies the latest scientific developments to the development of new raw materials and products, taking into account the principles of a healthful diet;

17.1.4. research skills. The person:

17.1.5. is able to develop advanced ideas on raw materials and food management, formulate hypotheses, independently plan and carry out complex experiments, and apply state-of-the-art methods to confirm or refute the hypotheses put forward;

17.1.6. is able to appropriately select statistical analysis methods for the analysis of the impact of raw materials and food handling factors on food quality and safety indicators, process data in a diverse and complex manner, and provide an objective interpretation of the results obtained;

17.1.7. is able to base raw material and food handling studies on professional and scientific information using reliable sources;

17.2. special abilities. The person:

17.2.1. is able to solve multifaceted problems related to other areas (food - sustainable production - environmental protection; food - food safety - healthful diet - public health, etc.);

17.2.2. is able to combine raw material and food handling processes, assess their limitations and their impact on the safety, quality and nutritional value of the raw material or product developed;

17.2.3. is able to comply with food safety management systems, ethical, environmental and commercial requirements in food business;

17.2.4. is able to identify and correct factors to optimise raw material and food handling processes;

17.2.5. is able to investigate and evaluate the quality indicators of new raw materials and foodstuffs, and provide overall conclusions;

17.2.6. is able to manage the human resources of the food business, as well as prepare, evaluate, coordinate and execute projects; understands the links between technological solutions and their economic, environmental and public health implications;

17.3. personal and social abilities. The person:

17.3.1. is able to take complex decisions independently and in a team when faced with multifaceted, technically unclear and imprecise problems;

17.3.2. is able to understand the short-term and long-term impact of food quality on society, the environmental impact of food raw materials and product production, and is aware of the responsibility for the consequences of food management activities;

17.3.3. is able to understand the importance of ethical and commercial requirements in food business activities;

17.3.4. appreciates advances in the field of raw materials and food management, as well as understands the importance of and prepares for individual lifelong learning;

17.3.5. is able to be a member and/or leader of a food business team, which may include individuals from different study fields.

CHAPTER IV TEACHING, LEARNING AND ASSESSMENT

18. Study methods must be effective and varied, independent work assignments must be in line with the study outcomes of the study programme and motivate students, and students' and teachers' time and material resources (libraries, laboratories, equipment, etc.) must be used in a rational manner.

19. The idea of lifelong learning must be promoted in the study process, and students must be trained and encouraged to take responsibility for their own learning. The study programme, its content and its didactic system must motivate students to also use other available resources and sources for their studies, and lecturers must be encouraged to incorporate innovations into the study process.

20. Teachers must have knowledge and understanding of the didactic concept of the study programme, meet the requirements of the study programme in terms of their competence, be able to construct the curriculum of a subject (module) in accordance with the programme of study to which it belongs, draw on the results of the latest scientific research, identify the links of the taught subject (module) with other fields of study and science, have a multidisciplinary approach to problem-solving, be able to improve the content of teaching and learning, and choose the most appropriate methods of assessing the studies and the student achievements in an appropriate student-oriented way.

21. The following methods and forms of study may be used: traditional and interactive lectures, laboratory work, information retrieval and summarisation exercises, case studies, problem analysis and problem-solving exercises, individual and group projects, presentations, as well as tutorials and virtualisation of studies if part of the study is carried out remotely. The same methods can be used at different cycles of study, but in the second cycle of study, they must be based on a more in-depth understanding of the content, more complex tasks, and the student's expression of autonomy.

22. The studies must include research work that develops analytical, practical and transferable skills in the area of food raw materials and product management.

23. Teachers can choose between different forms of examination and assessment, such as regular examinations, computer-based testing, problem-solving analysis, reports, presentations, laboratory reports, practice reports, project reports, learning records or portfolios, self-assessment, peer assessment, and others, and they need to be familiar with the methodological aspects of their use. The search for new integrated assessment methods should be encouraged. All knowledge and skills described in the learning outcomes must be assessed in a way that objectively reflects the level of knowledge and skills of the students.

24. Students must receive appropriate and timely feedback on their work or projects. Their assessment should be based on clear criteria and accompanied by constructive comments.

25. The assessment of student knowledge and skills must be reliable and based on clearly formulated and predetermined criteria, taking into account the conditions under which the work is carried out and the resources available.

26. The system for assessing student achievement in relation to the study programme must be clearly documented and must enable the higher education institution to ensure that students completing the study programme have achieved the results specified in the relevant study programme in the study field of Food Studies.

27. Students have the right to participate in examinations by alternative means if they have a disability or other special needs that prevent them from being assessed in the normal way. The alternative method of examination must be chosen individually by the teacher and must ensure that it allows for the assessment of the results achieved.

CHAPTER V

REQUIREMENTS FOR THE IMPLEMENTATION OF STUDY PROGRAMMES

28. Requirements for the qualifications of teachers:

28.1. at both study cycles, the subjects dealing with the field of study and the general subjects (modules) shall be taught by individuals holding at least a Master's degree or a higher education qualification equivalent thereto; all teachers of the subjects of the field of study shall relate the subject taught to the problems of food studies and illustrate the theoretical knowledge with examples of practical activities;

28.2. supervisors of practice in enterprises or establishments must have at least one year's experience of practical work in the intended training base;

28.3. at least half of the subjects (modules) (in study credits) of the first cycle of studies shall be taught by teachers holding a doctoral degree; at least 80 per cent of the teachers of all subjects of the second cycle of studies shall hold a doctoral degree. At least 20 per cent of the subjects in the study field in the second cycle studies must be taught by professors.

29. Both study cycles shall culminate in a publicly defended final thesis:

29.1. at least 15 study credits shall be allocated for the preparation and defence of the Bachelor's thesis;

29.2. final Bachelor's thesis must be based on independent research and application of knowledge, and must demonstrate competencies in line with the objectives of the study programme and the results of the studies. In the final thesis, the Bachelor student must demonstrate the level of knowledge and understanding, the ability to independently analyse the chosen topic, to carry out research in the field of Food Studies, to describe their research work, to clearly and reasonably formulate the conclusions and recommendations of the research in accordance with the requirements of the university;

29.3. at least 30 study credits shall be allocated to the preparation and defence of the Master's thesis;

29.4. final Master's thesis must be based on independent applied research and the application of knowledge, and must demonstrate competencies in line with the objectives of the study programme. In the final thesis, the Master's student must demonstrate the level of knowledge and understanding, the ability to analyse the chosen topic, assess the national and international

public health work previously carried out by others, independently study and conduct public health research, present interpretations of the research results, describe the research conducted, clearly and reasonably formulate research conclusions and provide practical recommendations with regard to the received research data under the requirements approved by the university.

30. A higher education institution organising studies in the field of Food Studies must have sufficient material and information resources to carry out the study programme. The material and methodological resources must meet the following minimum requirements:

30.1. classrooms must be equipped with modern audio-visual equipment and meet the requirements of public health and occupational safety;

30.2. laboratories and training rooms must be equipped with the necessary equipment and be suitable for group work and the development of practical and communication skills;

30.3. there must be a sufficient number of computers with word processing, quantitative and qualitative data processing, and innovative educational programmes;

30.4. libraries/reading rooms must be equipped with a sufficient amount of scientific literature, textbooks, methodology publications and manuals in Lithuanian and foreign languages necessary to complete the study programme. Libraries must be equipped with computers with online access to international databases;

30.5. study-related information (study plans, subject (module) descriptors, timetables and other information) must be made available on the website of the study information system. All study materials must be made available to students in the library and/or in an electronic environment.

31. Practice requirements:

31.1. student practice shall be an integral and compulsory part of all study programmes, that allows the knowledge and skills acquired by the student to be consolidated and developed in practical professional activities;

31.2. the volume of the practice shall be at least 15 credits in first cycle study programmes; practice shall not be compulsory in second cycle study programmes;

31.3. practice shall be included in the subjects of the field of study. Practice may be a separate subject (module) of study or a component part of a subject (module);

31.4. practice shall be organised in accordance with the description of the practice organisation procedure prepared by the higher education institution, which defines the requirements of the practice, specific tasks, the expected results and the system of evaluation of achievements, the support provided to the student during the practice, as well as the criteria for assessing the skills acquired by the student during it;

31.5. it is recommended that practice supervisors in universities and other institutions, organisations or enterprises be involved in the process of improving the content of practice tasks and the organisation of practice;

31.6. it is recommended that higher education institutions organise training for practice supervisors in institutions or enterprises;

31.7. practice in the first cycle study programmes must be organised in such a way that the student can develop professional competencies, ranging from the role of an observer to the performance of independent work under the supervision of a practice supervisor;

31.8. higher education institution must provide students with a list of potential practice bases with which cooperation agreements have been concluded. Practice in the study field of Food Studies shall be organised in institutions or undertakings designated by the higher education institution for the production of food raw materials and products, food handling and marketing, regulatory and other institutions or undertakings. Upon choosing an institution for practice, a tripartite agreement is concluded between the student, the higher education institution and the practice institution.

31.9. it is recommended that the student submits a written report on the completion of the practice, presenting and analysing the tasks and results obtained during practical training.

32. From the beginning of their studies, students should be encouraged to participate in voluntary activities, various social projects and to develop their personal and special skills in a targeted manner.

33. Students shall be offered career counselling.

34. Higher education institution providing study programmes in the study field of Food Studies must ensure the quality of studies, continuously improve study programmes, take into account the latest scientific achievements of food studies, the needs of the labour market and the needs of the students.
