

# Expert group joint opinion

Evaluation Procedure: Assessment of Study Field

Higher Education Institution: Latvia University of Life Sciences and Technologies

Study field: Health Care

Experts:

1. Irena Kaminska (Chair of the Experts Group)
2. Jurgita Andruskiene (Secretary of the Experts Group)
3. Mary Hunt
4. Svetlana Aleksejeva (Employers' Confederation of Latvia)
5. Marta Viluma (Student Union of Latvia)

## **Summary Assessment of the Study Field**

### **Summary Assessment of the Study Field**

The cooperation between the University of Latvia (LU), Rīga Stradiņš University (RSU) and the Latvia University of Life Sciences and Technologies (LLU) has created an example of good management of study resources, a model of the effective use of the universities' resources, their academic and research potential while implementing the joint Master study programme "Nutrition Science" in the study field "Health Care". By implementing an interdisciplinary approach to achieve the aims of the study field and the programme, each university brings into the programme its own special experience and strategic, purposeful use of infrastructure. LLU contribution to the joint study programme is based on its significant expertise in Food Science and Food Technology.

The Expert panel had the opportunity to meet enthusiastic and caring teachers (associate professors, lecturers), working in the study programme, motivated students and high calibre graduates, which demonstrated impressive career achievements. There is clearly a good working relationship between the management of the study field, study programme and social partners.

The internal quality assurance system is based on the essential stages, such as planning, doing, checking, and acting. It helps to maintain and improve the quality assurance system on many levels, one of the most important ones being controlling the performance of lecturers and students. Study work is organized and managed in accordance with standards and guidelines for quality assurance in the European Higher Education Area. Considering these guidelines, internal normative documents for the study organization have been developed. The indicators characterizing the quality of studies as well as qualification and work quality of the teaching staff and study environment are clearly described, attainable and measurable. Various forms of studies during Covid-19 pandemic maintained the quality of studies. There were some shortcomings detected by the expert panel, such as lack of feedback provided to the students regarding their issues shared in the surveys, also lack of data and feedback from graduates and employers.

The outcomes of scientific research are used for improvement of study quality, the teaching staff and students are actively involved in the process. International cooperation in the field of scientific research is implemented in various ways and is planned in a target-oriented manner, however efficiency criteria could be developed and applied for assessing the level of scientific research integration into the study process, as well for the teaching staff and students' involvement in scientific research.

The expert panel were satisfied with the quality of the learning facilities and resources in LLU, and the staff motivational and development opportunities.

The key areas of development recommended by the expert panel included measures to further enhance internationalisation by increasing students' involvement in ERASMUS+ mobility programme, improving regular feedback collection from graduates and employers, developing a system of providing feedback to the students regarding their issues shared in the surveys is closing the feedback loop, and improving the governance of the joint Study programme through the Programme Council of the Joint Masters.

### **1. Management of the Study Field**

#### **Analysis**

1. The study field "Health Care" and study programme "Nutrition Science" are meeting the needs of modern society in the field of public health by training highly qualified nutrition specialists working in health promotion and disease prevention areas. The significance of the study field programme for the development of society and national economy is determined by its interdisciplinarity and cooperation of three leading Latvian universities. This kind of cooperation is an example of efficient

management of study resources, academic and research potential. By implementing an interdisciplinary approach to achieve the aims of the study direction and the programme, each university brings to the programme its own unique experience, material and human resources, and strategic, deliberative use of infrastructure. The strategically developed, integrated joint master's study programme "Nutrition Science" (45722) of the University of Latvia, Riga Stradins University and Latvia University of Life Sciences and Technologies synergistically integrates into the study field "Health Care". Only one study programme is implemented in the study direction, it is the only such programme in Latvia and the Baltic countries.

In Self-Evaluation Report (SER) Part II, paragraph 1.1., it is stated: "The defined aims, tasks and development direction of the study programme are closely related to the study direction and correspond to the mission defined in the LLU development strategy: to achieve excellence in the fields of research specialization and to provide high quality study services". It is also stated that the aim of the joint academic master's study programme "Nutrition Science" is provided, but there is no statement of the aim of the study field "Health Care" in the report. Considering the fact that within the study field "Health Care", LLU implements only one academic master's study programme, namely, "Nutrition Science", it is feasible that the goals of the programme and the study field coincide, but it would be important to indicate it in the report.

As one of the priority research directions, the LLU strategy identifies the following: "New products from plant and animal raw materials, their nutritional studies and the research of biologically active substances in raw materials of food and products, but in SER, Part II, paragraph 1.2, it is not indicated. However, in SER Part II of the Report, paragraph 4.1. it is stated: "The research implemented in the study direction is closely related to the LLU priority research directions, which are defined in the LLU strategy".

SER Part II, paragraph 1.2. reads: "The study direction strategy is closely linked to the national public health policy, including health policy initiatives and public health guidelines for 2014-2020 and 2021-2027". As the strategy of the study field is not described in the preceding text, only the aim of the programme is identified, and it would be helpful to describe the connection between the aim of the study field / programme and the national public health policy.

The aim of the study field "Health Care" and the aim of the academic master's study programme "Nutrition Science" implemented at the LLU are the same and are clearly defined and attainable. The study field "Health Care" and study programme "Nutrition Science" comply with the main fields of the strategic development of the LLU and meet the needs and the development trends of the society and national economy.

2. The cooperation between the University of Latvia, Rīga Stradiņš University and the Latvia University of Life Sciences and Technologies has created an example of good management of study resources, a model of the effective use of the universities' resources, their academic and research potential. By implementing an interdisciplinary approach to achieve the aims of the study field and the programme, each university brings into the programme its own special experience and strategic, purposeful use of infrastructure.

The efficiency of the study programme management at LLU is promoted by the unified procedures in the study organization in all study fields and programmes, the unified model documents and the availability of information on ongoing processes and current events, regular meetings that bring together the management, the deans, and the supporting administrative units.

There is a programme director appointed in each partner university. The duties and rights of each programme director are determined by the internal normative documentation of the respective higher education institution. For the implementation of the joint academic master's study programme, the Programme Council has been established, which includes the programme directors of all partner universities; the elected Head of the Programme Council is the programme director of the University of Latvia. The Head of the Programme Council monitors the implementation of the

joint study programme in all partner universities. All representatives of the staff implementing the programme are bound by the Cooperation Agreement signed on 29 November 2004 and the amendments of 13 March 2007 to the Cooperation Agreement of 29 November 2004, which determine the responsibilities, duties and obligations of higher education institutions for the implementation of certain study modules and the subordinate elective courses, cooperation in research, financial commitments, etc. In the implementation of the joint study programme, the study programme director's duty is to cooperate with the directors of the academic master's study programme "Nutrition Science", organize the study process at the respective university, inform students and the teaching staff, cooperate with the Financial Planning Centre in preparing inter-university settlements, plan and conduct the joint entrance examination, analyse the assessment of all the students of partner universities in the implementation of the study process and study courses, organize the work of the teaching staff, involve doctoral students in the implementation of study courses.

To implement the joint master's study programme, the cooperation partners have integrated the quality assurance systems of higher education institutions for the effective internal quality assurance of studies, within which the following activities are carried out:

- 1) the internal quality control is ensured by the Programme Council, the management and the teaching staff of the responsible faculties of LU, RSU and LLU; it implies an annual discussion and evaluation of the study results;
- 2) the Programme Council undertakes the strategic planning of the study process and monitors its implementation, initiates the changes, which are discussed and approved by the Faculty Councils of the responsible higher education institutions;
- 3) the development of a joint annual self-assessment report, performance analysis;
- 4) a joint survey of students, graduates and employers;
- 5) the preparation of methodological study materials, common requirements for the development of a Master's thesis, etc.

The efficiency of the study programme management at LLU is promoted by the unified procedures in the study organization in all study fields and programmes, the unified model documents and the availability of information on ongoing processes and current events, regular meetings that bring together the management, the deans, and the supporting administrative units.

The decision-making system at the LLU ensures a quality study process and is efficient. The main institutions involved in the decision-making process at the LLU are the Convention and the Senate (SAR paragraph 1.2., page 9). The Convention functions in accordance with the Regulations (<https://www.llu.lv/lv/konvents>), the Senate functions in compliance with the Regulations (<https://llu.lv/lv/senats>). Orders, decisions, and procedures related to the main activities of the LLU are taken and passed within their respective powers by: Rector, Vice-Rectors for Studies / Sciences, Chancellor, the LLU Director and Deans of the faculties. The LLU has developed a detailed joint scheme of study processes, which includes 90 main processes of the study block, displays their sequence and correlation. The detailed joint scheme of study processes provides a unified approach to study processes in all structural units.

The study field is part of the general structure of the LLU, the body responsible for the implementation of the study field is the Faculty of Food Technology (PTF), but the implementation of the study courses of the study programme involves the cooperation partners: the Faculty of Chemistry, Biology and Medicine of the University of Latvia and the Faculty of Public Health and Social Welfare of Rīga Stradiņš University. The administrative staff of the Faculty of Food Technology is involved in ensuring the operation of the study field: Dean, Director of the study programme, Heads of the departments. The secretary of the dean's office of the faculty supervises the students' files, keeps records, and prepares the diploma supplements.

The person responsible for the implementation of the study programme is the programme director. The duties of the programme director include the organization and the development of the study

programme; the preparation of the information for the annual self-assessment report of the study programme and the study field, as well as for the accreditation self-assessment report; the cooperation with the Dean of the faculty, Heads of the departments, teaching staff and students aimed at improving the study programme; monitoring the evaluation of the teaching staff involved in the implementation of the study programme at LLU IS and evaluating them; analysing the results of the conducted surveys and proposing measures aimed at eliminating the revealed shortcomings; carrying out the academic recognition of study courses or their parts; informing students about current study processes, activities and requirements, and the cooperation with the LLU Studies Centre and Communication and Marketing Centre. In the implementation of the joint study programme, the programme director's duty is to cooperate with the directors of the academic master's study programme "Nutrition Science" in the partner universities, to organize the study process at the respective university, to inform students and lecturers, to cooperate with Resources Accounting Centre in preparing inter-university settlements, to plan and conduct the joint entrance examination, to analyse the assessment of all students of the partner universities in the implementation of the study process and study courses, to organize the work of the teaching staff, to involve doctoral students in the implementation of study courses

The formal governance of the Joint Study programme through the Programme Council of the Joint Masters is not provided - no Terms of Reference or minutes of meetings provided for the Programme Council of the Joint Masters.

Despite the fact that the Programme Council established for the implementation of the joint academic master's study programme does not keep minutes of its meetings and has no defined tasks, its functioning is still effective owing to the quality support systems of the universities involved in the study programme, the joint entrance examination and Master's Examination Commission, as well as the productive cooperation among the programme directors within the study programme, which has been effectively implemented since the very establishment of the programme.

3. The enrollment procedure and requirements for students are determined by the Procedure for Enrollment. The Procedure for Enrollment in the study programme "Nutrition Science", which is part of the study field "Health Care" are clearly defined and comprehensible. Persons with higher second level professional education Medicine or Dentistry, Food technology, Veterinary medicine, bachelor's or master's degree in Health Sciences (Nursing, Public health, Occupational therapy, Physiotherapy, Rehabilitation), Biology, Chemistry, Environmental science, Pharmacy, Food Science, Catering and hotel management, Sports pedagogy and Health education and other related fields can apply for the master's studies in the joint academic master's study programme "Nutrition Science". It is mandatory for all applicants to take the entrance examination.

The entrance examination takes place centrally for the applicants of all partner higher education institutions together, thus ensuring uniform requirements for the assessment of learning outcomes achieved by the students at LU, RSU and LLU.

Previously acquired formal and non-formal education opportunities in the study field are not applied, because so far there has been no need to apply them. However, LLU has developed normative documents "On the procedure of academic recognition at LLU" to ensure academic recognition of study results achieved in formal education and "Regulations on recognition of knowledge, skills and competences acquired outside formal education or acquired in professional experience".

4. The LLU has developed and follows certain procedures aimed at ensuring the observance of the principles of academic integrity and provide that the involved stakeholders are informed about the performance of academic work by observing the highest standards of professionalism and accuracy, objectivity and truthfulness, moral and ethical principles, and integrity. The LLU students and academic, general, scientific and administrative staff are equally responsible for the observance of

the academic integrity principles and for the consequences of their violation.

The LLU has developed and follows certain procedures for the examination of plagiarism of graduation theses and the measures to be taken in case of detection of the signs of plagiarism: there are two Rector's orders "Procedures for Submitting Electronic Copies of Final Theses and Their Verification in the Plagiarism Control System"; "Violations of Academic Integrity in Final Theses / Doctoral Theses"); and the LLU has signed an agreement on the use of the unified computerized inter-university plagiarism control system and the examination of final theses on plagiarism in undergraduate, master 's and doctoral studies.

LLU introduced a robust plagiarism detection tool during the COVID-19 pandemic which clearly identifies percentage plagiarism for all material submitted by students for assessment, including research theses and research projects.

Considering the fact that in the study process, the representatives of employers (specialists of the Public Health Department of the Ministry of Health, leading specialists of the field (gastroenterologists, obstetricians, nutritionists, etc.) also act as lecturers (in the status of visiting lecturers), participate in teaching study courses or parts thereof and are members of the Master's Examination Commission, we can conclude that employers are also made aware of the observance of the principles of academic integrity in the study process.

5. The information about the study programme "Nutrition Science" published on the LLU website corresponds to the information available in the official registers, and provides the necessary information to applicants and students.

## **Conclusions. Strengths and weaknesses**

The aim of the study field "Health Care" and the aim of the academic master's study programme "Nutrition Science" implemented at the LLU are the same and are clearly defined and attainable. The study field "Health Care" and study programme "Nutrition Science " comply with the main fields of the strategic development of the LLU and meet the needs and the development trends of the society and national economy.

To implement the joint master's study programme, the cooperation partners have integrated the quality assurance systems of higher education institutions for the effective internal quality assurance of studies.

Despite the fact that the Programme Council established for the implementation of the joint academic master's study programme does not keep minutes of its meetings and has no defined tasks, its functioning is still effective owing to the quality support systems of the universities (LLU, RSU, LU) involved in the study programme, the joint entrance examination and Master's Examination Commission, as well as the productive cooperation among the programme directors within the study programme, which has been effectively implemented since the very establishment of the programme.

LLU introduced a robust plagiarism detection tool which clearly identifies percentage plagiarism for all material submitted by students for assessment, including research theses and research projects.

### **Strengths**

1. The cooperation between the University of Latvia, Rīga Stradiņš University and the Latvia University of Life Sciences and Technologies has created an example of good management of study resources, a model of how to effectively use the universities' resources, their academic and research potential.
2. The entrance examination takes place centrally for the applicants of all partner higher education institutions together, and the commission for the defence of master's theses is one for all three universities, thus ensuring uniform requirements for the assessment of the students' study results at

LU, RSU and LLU.

3. Investment by LLU in an internal Plagiarism detection tool ensures that effective detection of plagiarism is implemented for all student assessment submitted, including research projects and theses, thus ensuring academic integrity is maintained.

Weaknesses

1. Formal governance of the Joint Study programme through the Programme Council of the Joint Masters is not provided - no Terms of Reference or minutes of meetings provided for the Programme Council of the Joint Masters.

## **2. Efficiency of the Internal Quality Assurance System**

### **Analysis**

1. LLU has established a quality policy which is publicly available. It is accessible on the website of the university - KV\_cepure\_4 (llu.lv). The document is specifically focussed on the system of internal quality maintenance and provision. It includes specific goals and principles of the university to achieve those goals. LLU has identified "excellence principles" which include but is not limited to leadership, balanced positive results, involvement of people, cooperation, ongoing development, responsibility and integrity as well as others. It also addresses the mission, values and strategy of the LLU regarding overall development of the higher education institution.

Importantly, the internal quality assurance system is confirmed by the Internationally recognized certificate "Investor in Excellence" which has been renewed biennially. The information has also been officially published on the website of the university- Sertifikāts "Investors in Excellence" | LLU. Currently, LLU has been accredited according to the excellence standard up until December 2022. The internal quality assurance system has been significantly improved because of the participation in the "Investors of Excellence " as it requires excellence in academic achievements, leadership, resource maintenance and providing services in order to maintain continuous improvement.

The internal quality assurance system is based on the essential stages, such as planning, doing, checking, and acting. It helps to maintain and improve the quality assurance system on many levels, one of the most important ones being controlling the performance of lecturers and students. LLU study work is organized and managed in accordance with standards and guidelines for quality assurance in the European Higher Education Area. Considering these guidelines, internal normative documents for the study organization have been developed. The indicators characterizing the quality of studies as well as qualification and work quality of the teaching staff and study environment are clearly described, attainable and measurable (SER, Part I, paragraph 2.1.).

For LLU it is of high importance to maintain a good quality study process. In order to do that, LLU has implemented indicators that provide them with data which show the level of quality. Such indicators are:

The number of matriculated students;

The number of students in the study programme;

Fulfilment of the state-funded places (SER, Part I, paragraph 2.1.).

During the onsite visits the university staff shared data regarding the 3rd indicator - fulfilment of the state-funded places. Every year they receive around 30 applications to the study programme who apply for the 10 available state funded places. This shows that there is an interest to study at LLU on the programme with a competitive process for the 10 available state funded places.

With regards to achievement of the aims and learning outcomes, the work quality of the teaching staff is of significant importance. One of the main tools in ensuring this quality is, as identified during onsite visit, once per semester questionnaires are provided to students after the end of the specific study course to collect feedback on the quality of the study course. In the questionnaire, students can evaluate the performance of the lecturer, the overall quality of the course, what they liked and what could be improved for the next year. Students can access the questionnaire through LLU IS.

The results of the survey and the comments provided in it give the lecturer the opportunity to evaluate and improve their work, provide the study program director with insights and recommendations for improving the quality of study courses and the programme. Since due to Covid-19 all studies were delivered remotely, LLU paid a lot of attention to how lecturers provide studies including study materials, presentations, and lecturers online within the study programme. The administration constantly checks Moodle and Triple B systems in order to make sure that the materials are provided and updated as well as that the quality of these are in compliance with the standards of the university. If students are not satisfied with the process of studies or a specific lecturer, they are advised to contact the rector or administration to address any issues of the study process as soon as possible. To provide practical tasks in Covid -19 times, lecturers became creative in ways on how to teach the material of the study course, for example, how to make chemical reactions. When it was possible, lecturers provided individual lessons in the laboratory for every student. Also, online lectures were interactive using group work in discussion rooms, online lectures were recorded so that students could rewatch these if something was not understandable.

Another tool that helps to ensure quality of academic staff is LLU regulations on academic positions, which confirm the compliance of the person's academic and professional qualification with the study and research work. The regulations are available at: <https://www.llu.lv/lv/nolikumi>. (SER, Part I, paragraph 2.1.). During the onsite visit it became clear that lecturers chosen are not only good in academic work but also are a part of the professional industry. Those of professional industry are mostly guest lecturers that provide added value for the students and insight of the trends in the work market. In order to maintain connection between the study courses and work market, lecturers are advised to communicate with the rector on possible new course implementation or update of existing study courses. LLU stays in touch with employers, graduates, and experts of the industry. In terms of the work market, it gains specialists who have basic knowledge on all of the topics but more in depth in the topics they are more interested in. All three university graduates - RSU, LLU and LU receive the same diploma. It is seen as a great benefit for the study field because all of the biggest universities in Latvia cooperate in the realization of the study programme and can make a great investment providing the best lecturers, experts of the field.

With regards to the quality of the study environment, a self-assessment report of the study programme is prepared once a year, which includes information on changes in study plans and courses, development of new study courses, study materials and information resources, cooperation with stakeholders, and infrastructure changes. The management of the Faculty constantly monitors the compliance of the study environment and material and technical provision with the needs of the study process (SER, Part I, paragraph 2.1.). This is of high relevance due to the fact that it is a joint programme between three universities.

For the implementation of the joint master's study programme, the cooperation partners have integrated the quality assurance systems of the higher education institutions for effective internal quality assurance of studies. During the meeting of study programme directors of LU and LLU, they stated that internal quality control is performed by the Programme Council, management and teaching staff of the responsible faculties of the University of Latvia, Rīga Stradiņš University and Latvia University of Life Sciences and Technologies, once a year discussing and evaluating the study results; preparation of study materials (SER, Part I, paragraph 2.1.) During an onsite visit, experts found out that the three universities have implemented joint admission for the programme. They all have the same requirements for admission and during the study process students take all the courses together. However, each university is responsible separately for their student data, and student issues raised regarding the study courses.

They have one graduation ceremony, common requirements for the development of a Master's thesis as the courses provided and the diploma for the students are the same. Each university is responsible for their own data from surveys. Universities do not share names of the students or any other more in depth information with each other, only providing general data with numbers. With



regards to assessment of study courses and issues of the lecturers, universities do not share such information with each other according to data policy. One finding of the Expert Panel is that a joint Data Sharing Agreement must be put in place if any student data is shared across the three partner Universities.

2. LLU has established a procedure of development of new study programmes. It is performed in accordance with the regulations "Regulations for the Development, Approval and Change of the Study Programmes at the LLU", approved by the Senate (SER, Part I, paragraph 2.2.). The periodicity of the review of the existing study programmes is once a year by preparing publicly available annual reports of the study field. The example of excellence could be considered content analysis of the study programmes which was performed from the point of view of industry experts (employers) and foreign experts. Recommendations of the industry and foreign experts have been considered for further improvement of the study programme, the detailed improvement examples are provided.

Feedback mechanisms are in place for students. As stated already in paragraph 2.1. LLU uses questionnaires/surveys once per semester for students through open and closed questions. Programme quality is improved based on all forms of questionnaires received from students for the purpose of maintaining the existing quality and improving it further. Although, it has to be noted that questionnaires are lacking from graduates and employers. It would be of great use to provide more recent numbers and conduct surveys from graduates and employers as the last survey of graduates are provided in academic year 2016/17 and the year of the last employer's survey is not even identified. Their feedback is advised to be taken into account from recent years for successful maintenance of the internal quality system. The overall recommendations of students are discussed in the Programme Council of joint academic master's study programme "Nutrition" and implemented in the study programme. The Expert Panel identified a lack of recent data on survey results from graduates and employers.

In case of issues or concerns, students are advised to submit proposals, issues about the course of the study process and the content of the study programme in other forms as well. Students can submit proposals: in writing or orally at the Faculty level - to the study programme director, the head of the department or the dean; in writing or orally at the LLU management level - the Studies Centre, the Vice-rector for Studies, the Rector, also the Board of Studies and the Senate, reviewing and approving the internal regulatory enactments of the Latvia University of Life Sciences and Technologies; anonymously, using the alert system at LLU - <https://www.llu.lv/lv/trauksmes-celsana>. The LLU Study Regulations, which are available to students at Mans LLU (My LLU), set out the procedure for submitting and reviewing issues. If a student has submitted a written complaint, then after its review, he or she will receive a written response if the review of the complaint has taken place without the student's being present (SER, Part I, paragraph 2.3.). More often students inform orally or in writing the director of the study program or the dean. During subsequent discussions, solutions and/or compromises are sought in case of a specific problem (change of lecturer). As the academic staff identified, student feedback is of high value and there have been situations when a lecturer has been fired from the study programme due to a substandard quality of teaching and dissatisfaction shared by the students.

However, during the onsite visit experts identified that no feedback is provided to students regarding the results and improvements of their issues, and where improvements have been implemented in the future for study courses. It could be done by providing the information whether on the website where it is accessible to read or on the e-studies platform.

Overall, students feel that their opinion regarding course improvements and need regarding the study process are heard and taken into consideration while more information and data from graduates and employers are needed.

3. LLU centrally collects statistical data from different aspects and with different regularity: once a

month, once an academic year, once a year. This information is the basis for the planning of the staff development direction in the Faculty, for the improvement of the study process, for the planning of material and technical and study material provision.

Once a month LLU collects data on the number of students in study programmes and fulfillment of the state-funded study places. Once an academic year LLU collects data on number of graduates in study programmes, study fields and faculties, types of funding, these data are used for preparation of various reports; enrolment results from different aspects, those are used for planning the enrolment limits and forecasts for each following year; compilation of statistical data of the LLU Augstskola-1 for the Central Statistical Bureau (CSB). Once a year LLU collects data on summary of statistics on study per the type and form of studies, graduates, dropouts, reasons, statistics of foreign students; fulfilment of state-funded study places by year; summary of the implementation of the performance indicators of LLU Development Strategies 2015–2022 in the educational programmes; student and teacher mobility indicators.

It is seen that the regularity of collecting statistical data from different aspects is sufficient, the data is available publicly or accessible for internal use (SER, Part I, paragraph 2.4.).

4. LLU Development Strategy, quality management assurance, staff development, management improvement plan, infrastructure development plan are the main strategic priorities. Integration of the standards included in Part 1 of the ESG in ensuring the internal quality of the study field are defined (SER, Part I, paragraph 2.5.) in 10 essential points. Increased attention is paid to the implementation of each standard, the most important is the implementation of student-centred teaching, the material base corresponding to the level of science, the qualification of lecturers, and the implementation of the research. The major challenge is student-centred learning implementation (ESG 1.3).

## **Conclusions. Strengths and weaknesses**

Overall, LLU has managed to establish a well- functioning internal quality assurance system that seems to work for students, academic staff and other involved parties as graduates and employers in order to develop and maintain good quality of studies and study environment. In case of shortcomings, students are heard and there are various ways how students can communicate with the LLU administration regarding issues that arise within the study process. Students are satisfied with the quality and system in place that they may share their views in a form of survey on every course and lecturer as well as write directly to the administration or share their complaint in a platform receiving feedback on the development of the issue. Only two setbacks are seen that may be improved which are - no feedback to students regarding survey results and implementation of GDPR within the sharing of data across the partner Universities.

### **Strengths:**

1. "Investor of Excellence" Certificate that shows constant improvement regarding the quality;
2. LLU study work is organized and managed in accordance with standards and guidelines for quality assurance in the European Higher Education Area;
3. Guest lecturers are professionals of the field that introduce students with trends of the work market as well as may advise to implement new courses;
4. Established feedback mechanism of the study courses and their quality;
5. Use of various forms of studies during Covid -19 pandemic maintaining the quality of studies as well as implementing various forms of practical tasks including individual laboratory visits.

### **Weaknesses:**

1. No feedback provided to students regarding their issues shared in the surveys;

2. No joint data sharing agreement across the three universities;
3. Lack of feedback from graduates and employers;

### **3. Resources and Provision of the Study Field**

#### **Analysis**

1. LLU has developed a system to determine the financial resources required for the implementation of the study direction. As stated in SER Part I, paragraph 3.1, financial resources required for implementation of the joint academic master's study programme are provided by three universities, where each university receives state budget funds for a specified number of state-funded study places. The number of state-funded places are agreed in a tripartite agreement between the Ministry of Education and Science, the Ministry of Agriculture and the Latvia University of Life Sciences and Technologies. European Regional Development Fund and European Social Fund project funds are used for the purchase of new equipment.

The use of financial resources is implemented by the LLU Financial Planning Center. The use of financial resources is strictly regulated and planned in advance. LLU Senate discusses and updates the general budget estimate with the working group "Working Group on the Use and Development of Resources" and then approves the budget in accordance with the Law "On the State Budget" yearly. Many different field representatives of the University are involved in the budget planning - Deans of Faculties, Chancellor, Rector, Vice-rector for Science, Vice-rector for Studies, Head of the financial center, Head of the resource accounting center, Lawyer, etc.

During onsite visits it was stated that the Faculty of Food Technology - the implementer of the study direction "Health Care" - can make operational decisions on budget planning, material and technical resources purchases etc. Determination of the financial resources required for the implementation of the study direction and the relevant study programmes is transparent and clear.

As stated in SER Part I, paragraph 3.1, PTF funds give additional opportunity to the scientific research of students and allow the education of the students, involvement of students in the performance of research work, etc. During onsite visits students mentioned their active participation in conferences with scientific works.

2. The joint academic master's study programme allows students and the teaching staff to use the infrastructure resources and the material and technical provision of all three universities. It gives huge opportunities to provide good outcome results of study direction. The students and the teaching staff have access to the necessary resources.

There are necessary infrastructure resources and the material and technical provisions are implemented for the study direction. As stated in SER Part I, paragraph 3.2. and SER Part II, paragraph 3.1., LLU has a newly established Study and Science Center of the Faculty of Food Technology. Students and teaching staff have the opportunity to use a big variety of modern analytical equipment, engineering equipment for various food production. During onsite visit there were multiple times mentioned by the students and graduates that they have access to necessary resources, such as laboratories and equipment, e-environments, library etc. There is no shortage of any material and technical resources.

As stated during onsite visit there is a simple system for the purchase of the material, technical, methodological provision. Also European Regional Development Fund (ERDF) or European Social Fund (ESF) project funds were used for improvement of the quality of the scientific base of the studies.

3. Regulations on Academic Positions of LLU regulates the process of attracting and employing the teaching staff. The LLU Senate determines the number of positions.

The individual academic work of teaching staff is planned in each academic year in accordance with

the Regulations on LLU academic work calculation and the Rector's order. The procedure of professional development is determined by Cabinet Regulation No. 569/2018 "Regulations on the Education and Professional Competence of Teachers". The professional development programme for teaching staff "Innovations in Didactics of the Higher Education Institutions" was established by LLU. Mastering of this programme is confirmed by certificate.

During onsite visit teaching staff has mentioned that their academic and research workload is balanced. The needs of the teaching staff for professional and didactic improvement are identified in advance and planned respectively. The professional improvement of the teaching staff consists of acquisition of professional development programmes and the participation in conferences. Every six years teaching staff have paid leave for six months for scientific research. There are different improvement areas that can be chosen by the teaching staff. There are several opportunities for teaching staff: ERASMUS + staff mobility program; participation in annual Academic Conference of the LLU; participation in international scientific conferences; the centrally organized professional development program. The teaching staff members participate in outgoing and incoming mobility, are involved in scientific research, make new contacts with universities and thus are providing mobility opportunities regarding the scientific works. 6 lecturers participated in teaching or training mobility (28 mobilities were implemented from 2013/2014 to 2019/2020 academic years). Lecturers did teaching in the following countries: Estonia, Poland, Turkey, Italy, France, Germany, Austria, Czech Republic, Slovakia, Portugal, Spain, Lithuania.

4. Students receive different types of support during the study process. Informative and methodological support is provided by e-environments, through emails, in libraries. Students also have the possibility to get financial support - scholarships. As was mentioned during onsite visits, students feel very comfortable and know that their concerns, proposals or needs will be noted and taken into account.

## **Conclusions. Strengths and weaknesses**

The use of financial resources is strictly regulated by the internal University system and law and planned in advance. Determination of the financial resources required for the implementation of the study direction and the relevant study programmes is transparent and clear. Many different field representatives of the University are involved in the budget planning thus covering all areas of specific financial needs for study direction. Operational decisions are made within the context of LLU long term decisions by the Faculty of Food Technology, so that an University's strategy is supported by its operating decisions.

There are necessary infrastructure resources and the material and technical provisions are implemented for the study direction. Students have full access to necessary resources, such as laboratories and equipment, e-environments, library etc.

Students are performing their scientific research and use the opportunity to present them at conferences. The opportunities to acquire ERASMUS + funding for the promotion of student and lecturer mobility are at a low rate due to the pandemic situation.

Attracting highly skilled teaching staff is clear and regulated by internal procedures. The teaching staff makes planned professional and didactic improvements and actively participates in outgoing and incoming mobility.

Support system works very well for students.

Strengths:

1. The joint academic master's study programme provides students and the teaching staff with full access to infrastructure resources and the material and technical provision of all three universities.

No Weaknesses identified

## 4. Scientific Research and Artistic Creation

### Analysis

1. As stated in the SER, in the study field, research is implemented in the directions food safety and risks, research of biologically active substances in raw materials of food and products, reduction of production by-products and waste in processing technologies, new products from raw materials of plants and animals, their nutritional studies (SER, Part I, paragraph 4.1.). Research directions in the study field „Health Care“ reflect the global trends in public health and nutrition science. Research directions in the study field „Health Care“ correspond to the mission defined in the LLU development strategy: to achieve excellence in the fields of research specialization and to provide high quality study services (Part I, paragraph 1.1). In the Regulation of the Cabinet of Ministers of the Republic of Latvia No. 746/2017 „On the priority directions in science in 2018-2021“ among the determined priority directions of science is public health, which emphasizes the importance and topicality of research of the study field. The research is being implemented by the teachers of the Faculty of Food Technology, leading researchers, researchers and the students preparing their Master theses. Academic staff members during the meeting confirmed they are discussing new research topic development possibilities with the students. Academic staff members can initiate the new topics for scientific research. Research in the field of food technology implemented within the direction is a key area of Latvia's Smart Specialization Strategy included in the bioeconomy sector. The administration of LLU is having a vision of the study field “Health Care” in the period of upcoming ten years as a strong and developed study field, having a very strong scientific background.

2. The relationship between scientific research and the study process of the SER is explained by the students' involvement in the implementation of research projects, on the basis of which they develop their Master's theses (SER, Part I, paragraph 4.2.). Some examples of excellence are given, illustrating students' research competence development by participating in the scientific projects and making presentations at scientific conferences, etc. (SER, Part I, paragraph 4.5). The outcomes of scientific research are used by the lecturers for improving their teaching courses, such as „Technology of Food Products“, „Novel Foods and Genetically Modified Organisms“, „Organic Agriculture Food Products“, etc. (SER, Part I, paragraph 4.2.). The discussion with the director of the study field revealed the students are encouraged to participate in research activities, the results they are using for their Master theses preparation. Academic staff confirmed during a meeting they are including the latest research findings in the teaching course, updating the study material. Students in the feedback surveys confirm they can identify the implementation of the results of scientific research in the study process.

3. International cooperation in the field of scientific research in the study field is implemented by participation in international projects (e.g. Interreg, FP7, Horizon2020, COST activities, ERASMUS +(KA2) programme projects, etc.). Academic staff involved in the study field are the members in the editorial boards of international scientific journals, experts in the evaluation of NATIONAL and international projects, experts in international organizations and institutions. Further cooperation aims and directions are established, they are focusing on the more intensive involvement of students in research, acquiring LLU grants, publishing research findings in scientific journals, integration of results into the study process, development of new research project applications, actively involving specialists from all fields of partner universities (SER, Part I, paragraph 4.3.). The strategy of international cooperation in the study field is based on the strengthening of international partnership by organising international conferences and inviting partners to participate, as well as inviting nutrition specialists from abroad to participate in international events. International collaboration with other universities is well developed. The collaboration partners are the universities providing mobility opportunities regarding the scientific works. Close contacts are set

with Kaunas University of Technology, Copenhagen University, Tallinn TECH, etc.

4. Teaching staff are involved in scientific research in different ways. Involvement of study programme teachers in research is organised through preparation of project applications and implementation of projects, organization of international scientific conferences and events, cooperation developed within the framework of mobility, etc. Teachers of the study field are preparing and publishing articles in the issues that are indexed in SCOPUS and Web of Science (WoS) databases, preparing study materials, books, scientific monographs (SER, Part I, paragraph 4.4). Teachers gave some examples during the meetings about their involvement in scientific research, mainly by implementing the outcomes of scientific research for teaching courses improvement, for example, „Technology of Food Products“ or „Novel Foods and Genetically Modified Organisms“. Teachers' involvement in scientific activities is beneficial for the students because they are using updated teaching material and their teaching is research informed. Teachers were asked during the meeting explain how their involvement in scientific research is being measured, and how the efficiency of involvement is being assessed. Maybe annual interviews with study course leaders are being organized and the planning process is based on that, but the teaching staff indicated no clear and detailed criteria for teaching staff involvement in scientific research. That is why the weakness was identified as the lack of efficiency criteria for assessing the level of staff involvement in scientific research. And the recommendation was given to develop the efficiency criteria for assessing the level of involvement of teaching staff in scientific research.

5. The students of the study programmes of all levels are involved in scientific research. Student involvement in research is an integral part of the study process and important for the development of research in the study field. Involvement is provided by development of Master's theses based on research in a specific topic, presentation of the research results at conferences, publication of research results in the abstract collections. Students' involvement in research projects is facilitated by the supervisor of the Master's theses or the lecturer of the study course, employing the student as a research assistant, laboratory assistant, also a volunteer (SER, Part I, paragraph 4.5.). Examples about students' involvement in project implementation and preparation of project applications are provided. For example, during the academic year 2019/2020, one LLU Scientific Capacity Strengthening project was implemented, in which the student of this study programme took an active part in developing the Master's thesis "Fatty acid composition in human milk" (the thesis was defended in May 2021). The students who participated in the meeting with experts were asked how they are being promoted to get involved in scientific research, but no specific efficiency criteria were named, that is why the weakness was identified as the lack of efficiency criteria for assessing the level of students' involvement in scientific research. And the recommendation was given to develop efficiency criteria for assessing the level of involvement of students' in scientific research.

6. Innovative solutions (product innovation) are introduced in the implementation of study courses, integrating research findings into studies. In the development of Master theses, students have the opportunity to implement innovations in research by learning new, modern analytical equipment for obtaining research results (for example, gastrointestinal tract simulation equipment, understanding it's basic principles and data processing and discussion), etc.

## **Conclusions. Strengths and weaknesses**

Research directions in the study field „Health Care“ are clearly stated, they closely correspond with the mission of institutions of higher education and global trends in public health and nutrition science. The relationship between scientific research and the study process are defined and ensured. The outcomes of scientific research are integrated in the study process by improving

teaching material. International cooperation in the field of scientific research within the study field „Health Care“ and the study programme „Nutrition Science“ is implemented by a wide range of international activities ensured and improved in a target-oriented manner. Teachers are involved in scientific research by implementing different scientific activities. Student's involvement in research is an integral part of the study process, developing students' research competences by the development of Master's theses and disseminating the results of research at conferences and publishing scientific articles.

However, the lack of efficiency criteria assessing the level of scientific research integration into the study process, as well for the teaching staff and students' involvement in scientific research, was identified, that is why it was named as the weakness and the recommendation was given to develop the efficiency criteria for assessing the level of scientific research integration into the study process, as well for the teaching staff and students' involvement in scientific research.

Innovative solutions are introduced by the students applying new, modern analytical equipment for obtaining research results.

Strengths:

1. Directions of the scientific research clearly correspond to the mission of the higher education institution and global trends of public health and nutrition.
2. The outcomes of scientific research are used for improvement of study quality, the teaching staff and students are actively involved in the process
3. International cooperation in the field of scientific research is implemented in various ways and is planned in a target-oriented manner.

Weaknesses:

1. Efficiency criteria could be developed and applied for assessing the level of scientific research integration into the study process, as well for the teaching staff and students' involvement in scientific research.

## **5. Cooperation and Internationalisation**

### **Analysis**

1. The joint nature of this study programme requires the cooperation of three Latvian Universities, which is a unique selling point and a clear strength of this programme. The collaboration across Universities contributes to achieving the aims and learning outcomes of the study field 'Healthcare'. Each of the three partner Universities brings specific complementary expertise, with LLU contributing in the area of Food Science and Food Technology, where it has clear strengths.

The partner Universities have developed links with the following broad range of collaborators:

- a) Higher Education Institutions - Wageningen University, Institute of Horticulture, Scientific Institute of Food Safety, Animal Health and Environment Bior, LU Institute of Microbiology and Biotechnology, LU Biomedical Research Centre. A number of these collaborations have yet to be explored.
- b) Employers - Clinicians, gastroenterologists, obstetricians, nutritionists, who participate in teaching on the study programme or parts thereof. Employers are also members of the Master's Examination Commission.
- c) Latvian Bakers' Association, Food Union, Ltd Lāči, Ltd Puratos Latvija.
- d) Municipalities - Latvian Association of Nutritionists.
- e) Nutrition Council of the Ministry of Health.

These employers and contributors assist the Universities by participating and contributing to the biennial international scientific conference "Nutrition and Health", which is organised by the joint programme.

Professors/Lecturers actively participate in drafting normative documents, coordinating decisions and opinions, e.g., Regulations of the Cabinet of Ministers No. 127/2017 "Amendments to Cabinet Regulation No. 172 of 13 March 2012" "Regulations Regarding Nutritional Norms for Educatees of

Educational Institutions, Clients of Social Care and Social Rehabilitation Institutions and Patients of Medical Treatment Institutions", also "Childhood Obesity Action Plan 2014-2020", "Latvian Guidelines on Healthy Eating for Pregnant Women", "Differentiation of Excise Duty on Sweetened Non - Alcoholic Beverages and Application of Excise Duty on Food Supplements", "Distribution of Dietary Food in Retail Bulk". In accordance with the Public Health Guidelines for 2014-2020, and 2021-2027, the recommendations for a healthy diet (Ministry of Health Order No. 212 (24.11.2017.) "Recommended Energy and Nutrient Intakes") are being developed, based on the latest nutritional knowledge and the Nordic dietary recommendations.

Cooperation partners are selected by LLU according to the study direction in nutrition, nutrition science and nutrition and health. Cooperation with these partners is organized as follows: participation in projects, drafting of regulatory acts, lecturing on study courses, organisation of international scientific conferences, external evaluation of the study programme and employment of graduates. This is sufficiently broad to meet the requirements of meeting the aims and learning outcomes of the study field and study programme.

Attracting employers to the study field and study programme is carried out as follows: 1) contributing program expertise from the perspective of employers; 2) employer surveys; 3) participation of employers in the implementation of the study programme (lectures, development of master's thesis, management of master's thesis, recommendation of master's thesis topics, etc.); 4) sponsors of the international scientific conference "Nutrition and Health".

2. LLU is a member of the Latvian Higher Education Export Association (AIEA) and participates in its organizing activities. LLU delivers Undergraduate, second level professional, masters (9) and Doctoral programmes through English. An LLU Portal provides information for students on enrolment. LLU has one study programme in the study field of 'Healthcare' and there are no international students registered in the Study Field 'Healthcare' or in the study programme "Nutrition Science". There are currently no plans to deliver the joint programme in English.

A list of co-operation agreements is provided as supporting evidence and includes a number of foreign Universities (SER, part I, paragraph 5.2, Annex 2). LLU has an active Erasmus+ exchange programme and students from LLU can travel to partner Universities within Europe for periods of study. Additionally, students from abroad can travel to LLU on Erasmus exchange. Given that the 'Nutrition Science' programme is delivered in Latvian, there is little opportunity for Erasmus Exchange into the study programme from abroad. There are however opportunities for LLU students to travel abroad on Erasmus+ exchanges but there has been no mobility of students since 2016 from LLU on the Nutrition study programme (SER part I, paragraph 5.2, Annex LLU student mobility). There is a developmental opportunity for the study direction and study programme in encouraging and facilitating more study abroad opportunities through Erasmus, particularly at Masters level.

Data on the mobility of visiting professors from Latvia and abroad shows 1 visiting professor from Latvia in 2019/20 and 7 foreign mobility professors in the past 5 years (SER part I, paragraph 5.2, Annex 4 and Annex 7).

Evidence of opportunities for LLU academic staff to travel on Erasmus teaching exchanges is provided in Annex 4 (SER, part I, paragraph 5.2 Annex 4). Over the past 6 academic years, approximately 5 LLU staff on the joint master's study programme "Nutrition" have availed of Erasmus exchange opportunities.

In addition project No. 8.2.2.0/18/A/014 "The Strengthening of LLU Academic Staff " (2019-2021) implemented by LLU helps to attract foreign professors was affected by the global pandemic and limited the opportunities for exchange in the years 2020 and 2021. The procedures implemented by LLU to attract foreign professors contribute to the development of the study field and study programme and bring international perspectives to the study programme.

3. Not applicable



4. The direction report and the self-assessment report of the study programme have been prepared, providing the justification, the description of the partner universities, their responsibility and contribution to the implementation of the study program.

All three partner Universities contribute to the joint programme in complementary areas of expertise, which enriches the student experience. At the meeting with representatives of the three Universities, oral evidence was provided that the implementation of the joint study programme works well at the programme Director level across the three Universities. No clear Terms of Reference are available for the Program Council of the Joint Masters and the formal governance of the programme would need to be strengthened through the Program Council for the Joint Masters.

Evidence is provided in SER Part III paragraph 1.1, in relation to the implementation of the joint study programme as follows:

“Decision of the Study Accreditation Commission, in accordance with Articles 28.5 and 28.7.1 of the Accreditation Regulations. points: 1) to recognize the academic master’s study programme “Nutrition Science” corresponding to the study field “Health Care” implemented by LU, RSU and LLU as a joint study programme; 2) to approve the place of implementation of the academic master’s study programme “Nutrition Science” corresponding to the RSU study field “Health Care”, indicating that the study programme is implemented at LU – Riga, RSU – Riga, LLU – Jelgava”.

## **Conclusions. Strengths and weaknesses**

This programme is unique in Latvia and each of the partner Universities bring complementary expertise to the programme of study. There are also a broad range of contributors to the programme from Industry, Clinical expertise and the Ministry of Health. There are clear opportunities to increase the student experience through the well-established Erasmus Exchange partnerships developed by LLU and these opportunities should be pursued through the International Cooperation Centre, LLU.

Strengths:

1. LLU contribution to the joint study programme is based on its significant expertise in Food Science and Food Technology
2. Positive verbal feedback during the Expert Panel visit from employers in relation to the quality of graduates of the programme
3. Good range of employers evident on the study programme

Weaknesses:

1. Limited evidence of uptake of Erasmus exchange by students on the LLU study programme

## **6. Implementation of the Recommendations Received During the Previous Assessment Procedures**

### **Analysis**

1. In the previous procedures for the assessment of the study field, after the assessment of the joint academic master’s study programme “Nutrition Science” of LU, RSU and LLU, eight recommendations were given for the improvement of the quality of the study programme and the study field “Health Care” (Latvia).

SER Part II, paragraph 6.1., pages 50 – 52 and Annex 3 describes the implementation of the recommendations received by LLU. Four recommendations (To strengthen lecturers’ English language skills; To review the enrolment rules for the study programme, taking into account the knowledge and skills of applicants from different fields; Promotion of international cooperation, projects, mobility; Labour market demand has not been assessed in the implementation of this

programme) have been fully implemented. It should be noted as positive, that in implementing two of the recommendations (To strengthen lecturers' English language skills; Labour market demand has not been assessed in the implementation of this programme) the funds of the ESF project no. 8.2.2.0/18/A/014 "The Strengthening of LLU Academic Staff" and the ESF project no. 8.2.3.0/18/A/009 "The Management Improvement of the Latvia University of Life Sciences and Technologies" has been used.

The implementation of the recommendation "To increase the funding of higher education institutions to fulfil their role as providers of study programmes in study field "Health Care"" is not within the competence of the university, as the cost of a budget funded study place in the study programme is determined by the relevant ministry.

The recommendation "To better use resources in areas where overlap might cause unnecessary fragmentation" is not applicable to the joint academic master's study programme "Nutrition Science", because exactly the cooperation between the University of Latvia, Rīga Stradiņš University and the Latvia University of Life Sciences and Technologies has created an example of good management of study resources, a model of how to effectively use the universities' resources, their academic and research potential.

The recommendation "The availability of European funding should be better advertised among administrators of the study programmes in study field "Health Care" is not directly applicable to LLU, because the corresponding study courses of the joint academic master's study programme "Nutrition Science" are implemented by the LLU Faculty of Food Technology, where the number of attracted European projects is large.

The recommendation "To improve the democratic principles in organization and implementation of the study programmes; the better involvement of students in the students' self-government is also desirable" has not been fully implemented: in SER Part II paragraph 6.1., page 47 (the version in Latvian) it is written that it is not applicable to the joint programme. Improving the principles of democracy in the field of studies, more active involvement of students in decision-making processes and student self-government is relevant to all programmes implemented by the university.

## **Conclusions. Strengths and weaknesses**

In the previous procedures for the assessment of the study field, after the assessment of the joint academic master's study programme "Nutrition Science" of LU, RSU and LLU, eight recommendations were given for the improvement of the quality of the study programme and the study field "Health Care". Four recommendations have been fully implemented. Three recommendations are not directly applicable to LLU study programme "Nutrition Science". The recommendation "To improve the democratic principles in organization and implementation of the study programmes; the better involvement of students in the students' self-government is also desirable" has not been fully implemented.

Strengths:

1. In the implementation of two recommendations (To strengthen lecturers' English language skills; Labour market demand has not been assessed in the implementation of this program) the funds of the ESF project no. 8.2.2.0/18/A/014 "The Strengthening of LLU Academic Staff" and ESF project no. 8.2.3.0/18/A/009 "The Management Improvement of the Latvia University of Life Sciences and Technologies" has been used.

Weaknesses:

1. The recommendation "To improve the democratic principles in organization and implementation of the study programmes; the better involvement of students in the students' self-government is also desirable" has not been fully implemented.

## **7. Assessment of the Requirements for the Study Field**

- 1 R1 - Pursuant to Section 5, Paragraph 21 of the Law on Institutions of Higher Education, the higher education institution/ college shall ensure continuous improvement, development, and efficient performance of the study direction whilst implementing their internal quality assurance systems:

**Assessment of compliance:** Fully compliant

LLU implements an internal quality assurance system, within which the quality of higher education is ensured; a mechanism has been developed for the development of study programmes and supervision of their performance; the criteria for the evaluation of students' results have been developed, which enable the reassurance of the achievement of the envisaged learning outcomes; the internal procedures and mechanisms for assuring the qualification of the academic staff and quality of their work have been established; the infrastructure has been developed in accordance with the level of scientific development of the study programme. Joint quality assurance system ensures continuous improvement, development and efficient performance of the study field.

- 2 1.1. The higher education institution/ college has established a policy and procedures for assuring the quality of higher education.

**Assessment of compliance:** Fully compliant

LLU implements an internal quality assurance system, within which the quality of higher education is ensured.

The efficiency of the study programme management at LLU is promoted by the unified procedures in the study organization in all study fields and programmes, the unified model documents and the availability of information on ongoing processes and current events, regular meetings that bring together the management, the deans, and the supporting administrative units

- 3 1.2. A mechanism for the development and internal approval of the study programmes of the higher education institution/ college, as well as the supervision of their performance and periodic inspection thereof has been developed.

**Assessment of compliance:** Fully compliant

LLU has developed a mechanism for the development of study programs and monitoring of their implementation and supervision of their performance.

- 4 1.3. The criteria, conditions, and procedures for the evaluation of students' results, which enable reassurance of the achievement of the intended learning outcomes, have been developed and made public.

**Assessment of compliance:** Fully compliant

The criteria for the evaluation of students' results have been developed, which enable the reassurance of the achievement of the envisaged learning outcomes.

The basic principles of student knowledge evaluation are determined by the Cabinet of Ministers regulations No. 240/2016 "Regulations on the State Academic Education Standard" and LLU internal regulatory acts, for example, the Study Regulations. Criteria, conditions and binding procedures for assessing students' progress are described in the Study Regulations, see [https://www.llu.lv/sites/default/files/2021-05/Studiju\\_noikums\\_2021.pdf](https://www.llu.lv/sites/default/files/2021-05/Studiju_noikums_2021.pdf) (in Latvian). The basic principles of assessment are based on the learning outcomes in the study programme (SER, part I, paragraph 1.6.).

Information about the study programme of the study direction is published on the LLU portal ([www.llu.lv](http://www.llu.lv)), providing basic information about the programme, including current events. A

detailed description of the study programme is available in the section Studijas / Studiju programmas (in Latvian), where one can see the detailed information of the study programme - <https://www.llu.lv/lv/magistra-studijas/uzturzinatne> (Uzturzinātne). Information about the study program can be found in the section Nāc studēt/Ko studēt? Palīgs studiju programmu izvēlē (in Latvian) - <https://www.llu.lv/lv/nac-studet-llu>

The description of the study programme is also available on the website of the Faculty of Food Technology (<http://www.ptf.llu.lv/lv>) in the section Studijas / Studiju iespējas (in Latvian), see master's studies (<http://www.ptf.llu.lv/lv/magistra-studijas>). (SER, part I, paragraph 1.8.)

- 5 1.4. Internal procedures and mechanisms for assuring the qualifications of the academic staff and the work quality have been developed.

**Assessment of compliance:** Fully compliant

The internal procedures and mechanisms for assuring the qualification of the academic staff and quality of their work have been established.

- 6 1.5. The higher education institution/ college ensures the collection and analysis of the information on the study achievements of the students, employment of the graduates, satisfaction of the students with the study programme, efficiency of the work of the academic staff, the study funds available and the disbursements thereof, as well as the key performance indicators of the higher education institution/ college.

**Assessment of compliance:** Fully compliant

LLU has managed to establish a well- functioning internal quality assurance system that seems to work for students, academic staff and other involved parties as graduates and employers in order to develop and maintain good quality of studies and study environment. In case of shortcomings, students are heard and there are various ways how students can communicate with the LLU administration regarding issues that arise within the study process. Students are satisfied with the quality and system in place that they may share their views in a form of survey on every course and lecturer as well as write directly to the administration or share their complaint in a platform receiving feedback on the development of the issue.

- 7 1.6. The higher education institution/ college shall ensure continuous improvement, development, and efficient performance of the study direction whilst implementing their quality assurance systems.

**Assessment of compliance:** Fully compliant

The internal quality assurance system is a continuous process, the aim of which is the continuous improvement and development of the study direction and the study programme included in it. This is confirmed by the internationally recognized certificate "Investor in Excellence" obtained by the LLU, which has been obtained for the second time and currently the activities of the LLU are audited according to this certificate until 2022.

- 8 R2 - The cooperation with different organisations from Latvia and abroad implemented within the study direction ensures the achievement of the aims of the study direction.

**Assessment of compliance:** Fully compliant

This programme is unique in Latvia and each of the partner Universities (LLU, LU, RSU) bring complementary expertise to the programme of study. There are also a broad range of contributors to the programme from Industry, Clinical expertise and the Ministry of Health and international organizations. The cooperation with different organizations from Latvia and abroad implemented within the study field ensures the achievement of the aims of the study field.

- 9 R3 - Compliance of scientific research and artistic creation with the development level thereof (if applicable).

**Assessment of compliance:** Fully compliant

Teaching staff is involved in scientific research in different ways. Involvement of study programme teachers in research is organised through preparation of project applications and implementation of projects, organization of international scientific conferences and events, cooperation developed within the framework of mobility, etc. Teachers of the study field are preparing and publishing articles in the issues that are indexed in SCOPUS and Web of Science (WoS) databases, preparing study materials, books, scientific monographs (SER, Part I, paragraph 4.4). Teachers gave numerous examples during the meetings about their involvement in scientific research. Teachers' involvement in scientific activities is beneficial for the students because they are using updated teaching material.

- 10 R4 - Elimination of the shortcomings and deficiencies identified during the previous assessment of the study direction, if it has been conducted, or the implementation of the provided recommendations.

**Assessment of compliance:** Partially compliant

Four recommendations (To strengthen lecturers' English language skills; To review the enrolment rules for the study programme, taking into account the knowledge and skills of applicants from different fields; Promotion of international cooperation, projects, mobility; Labour market demand has not been assessed in the implementation of this programme) have been fully implemented. Three recommendations are not directly applicable to LLU. The recommendation "To improve the democratic principles in organization and implementation of the study programmes; the better involvement of students in the students' self-government is also desirable" has not been fully implemented.

**8. Recommendations for the Study Field****Short-term recommendations**

- |   |
|---|
| 1. To develop a system of providing feedback to students in relation to any improvements or actions made as a result of student feedback/issues raised. |
| 2. To develop a process for periodical feedback collection from graduates and employers.  |
| 3. To implement a Data Sharing Agreement across the three Universities in compliance with GDPR.   |
| 4. To ensure clear governance of the Joint Study programme, Terms of Reference for the Programme Council of the Joint Masters should be developed.      |

**Long-term recommendations**

- |  |
|--|
| 1. To develop the efficiency criteria and periodically assess the level of scientific research integration into the study process, as well for the teaching staff and students' involvement in scientific research.                              |
| 2. To increase students' involvement in ERASMUS+ mobility programme.   |
| 3. To assure full implementation of the recommendation "To improve the democratic principles in organization and implementation of the study programmes; the better involvement of students in the students' self-government is also desirable". |

**II. "Nutrition Science" ASSESSMENT**

## II. "Nutrition Science" ASSESSMENT

### 1. Indicators Describing the Study Programme

#### Analysis

1. The joint study programme is implemented as a full time study programme with duration 2 years and amount 80 Latvian CP. Language of implementation - Latvian. Code of the study programme in accordance with the Latvian Education Classification - 45722.

The name of the study programme, the degree, the aims, objectives, learning outcomes, and admission requirements are interrelated. The title of the study programme includes "Nutrition Science", which is an interdisciplinary field based on the fundamental sciences (chemistry, biology) and medicine (anatomy, physiology), as well as the regularities of health sciences and food science in maintaining and strengthening human health.

The degree to be awarded – Master of Health Sciences in Nutrition Science is closely related to the content of the study programme and study results to be achieved. The aim of the study programme is to educate qualified nutrition science specialists who have acquired in-depth theoretical and methodological knowledge and research skills to independently conduct research in the field of nutrition, food, food chemistry and toxicology, who are able to analyse, critically evaluate and generate new ideas and alternative approaches to nutrition and prevention of nutrition-related diseases. The objectives defined for the implementation of the aim are closely related to the study results to be achieved, which allows educating specialists for health care institutions, research work, public health policy makers, implementers of educational programs, etc., who are endowed with critical thinking and analytical skills.

The study results of the Master's study programme correspond to the 7th level of the Latvian Qualifications Framework (LQF), which is described in the Cabinet of Ministers Regulations No. 322 "Regulations on the Classification of Education in Latvia" (June 13, 2017), but, taking into account the above-mentioned regulations of the Cabinet of Ministers, the study results could be combined into larger blocks, stating 5-9 expected study results.

Recommendation: to review the study results and formulate them in 5-9 study results.

Admission requirements for the programme provide for the admission of applicants with appropriate education – 2nd level professional higher education in Medicine or Dentistry, Food technology, Veterinary Medicine, Bachelor's or Master's degree in Health Sciences (Nursing, Public health, Occupational therapy, Physiotherapy, Rehabilitation), Biology, Chemistry, Environmental Sciences, Pharmacy, Food Science, Sports pedagogy and Health Education, and other related fields. Applicants must take an entrance examination, which includes an update of nutrition-related issues. Students are matriculated on a competitive basis based on the weighted average mark in the undergraduate education document and the results of the entrance examinations.

Taking into account the information provided in SER Part III paragraph 1.1.: "Decision of the Study Accreditation Commission, in accordance with Articles 28.5 and 28.7.1 of the Accreditation Regulations. points: 1) to recognize the academic master's study programme "Nutrition Science" corresponding to the study field "Health Care" implemented by LU, RSU and LLU as a joint study programme; 2) to approve the place of implementation of the academic master's study programme "Nutrition Science" corresponding to the RSU study field "Health Care", indicating that the study programme is implemented at LU – Riga, RSU – Riga, LLU – Jelgava", it is recommended:

1. To conclude a new inter-university agreement on the implementation of the joint academic master's study programme "Nutrition Science" between LU, RSU and LLU, because the agreement signed on November 29, 2004:

a. regards the implementation of the inter-university master's study programme "Nutrition Science", but since 2015 it is a joint study programme;

b. in Paragraph 4.3. of the agreement between the higher education institutions on the implementation of the programme, it is stated that “the Master’s degree in Health Sciences in Nutrition is awarded by the Council of the respective faculty of the higher education institutions of the Parties; the sample of the diploma submitted as an Annex indicates that by a decision of the Master’s examination commission of the Latvia University of Life Sciences and Technologies the person has obtained a MASTER’S DEGREE of Health Sciences in Nutrition Science.

2. To specify the place of the implementation of the study programme because in SAR, page 59 it is stated that “Places of implementation is Latvia University of Life Sciences and Technologies”, but in SAR Part III paragraph 1.1., page 60 it is indicated that: “the study programme is implemented at LU – Riga, RSU – Riga, LLU – Jelgava”.

The learning outcomes of the optional modules on the study programme do not always align with the aims and objectives of the study programme. An example of this is where a student takes a module in ‘Medi6007 Medical Nutrition Therapy in Acute Diseases’ and skills acquired include ‘to evaluate patients nutritional status, diagnostic significance, indications and contraindications of nutrition therapy in acute clinical cases’. There are additional examples in other modules such as ‘Medi6004 Medical Nutrition Therapy in Chronic Diseases’. It is not clear that graduation with a Masters in Nutrition Science would permit such an activity (Annex 8).

A careful mapping of all modules available on the programme should be carried out against the learning outcomes of the programme to ensure that these are clearly aligned.

## **Conclusions by specifying the strengths and weaknesses**

The name of the study programme, the degree, the aims, objectives, learning outcomes, and admission requirements are interrelated. The title of the study programme includes “Nutrition Science”, which is an interdisciplinary field based on the fundamental sciences (chemistry, biology) and medicine (anatomy, physiology), as well as the regularities of health sciences and food science in maintaining and strengthening human health.

Strengths:

1. The name of the study programme, the degree, the aims, objectives, learning outcomes, and admission requirements are interrelated. The degree to be awarded - Master of Health Sciences in Nutrition Science is closely related to the content of the study programme and study results to be achieved.

Weaknesses

2. The learning outcomes of the optional modules on the study programme do not always align with the aims and objectives of the study programme. A careful mapping of all modules available on the programme should be carried out against the learning outcomes of the programme.

## **2. The Content of Studies and Implementation Thereof**

### **Analysis**

1. The content of the study courses included in the study programme corresponds to the field of nutrition science, public health needs, health care findings and new trends. The content of the courses is constantly updated, as the courses are implemented by lecturers, guest lecturers with their academic and research work related to the topic of the course, professionals in the field, who practically solve issues related to the topic of the course on a daily basis. Updating the content of the courses in accordance with the trends in nutrition science is promoted and ensured by the scientific work of the lecturers. In addition, the implementers of the joint master’s study programme, in cooperation with graduates and industry specialists, are regularly organizing the international scientific conference „Nutrition and Health“. The information included in the study courses (aims,

results to be achieved) is closely related to the aim, objectives and results to be achieved of the study programme, it is demonstrated in the Annex 8 - the mapping of the joint master's study programme "Nutrition Science" study courses. The courses that are in the responsibility of LLU and are a part of the study programme "Nutrition science" are outlined in the Annex 9. The programme includes such courses as Nutrition politics and nutrition science, assessment of nutritional status, food chemistry, nutrition value of food products, technology of food products, food and nutrition quality, novel foods and genetically modified organisms.

A logical sequence is provided for the acquisition of the courses included in the programme. During the first year, more general courses are provided to give a basis of knowledge for those who are lacking knowledge in nutrition - public health and epidemiology, food and nutrition quality. Further on, more specific courses are provided concentrating on specific subfields and giving more in depth in regard to the topic as courses of food supplements and additives, drinking water. The implementation of the study programme ensures the fulfillment of the aim and defined tasks, the achievement of study results and students' knowledge, skills and competencies in accordance with the 7th level of the Latvian qualification framework. Although, it has to be pointed out that Law on Higher Education Institutions indicates that all programmes should include the amounts of the mandatory, limited elective and elective part of study programmes and the division of credit points between them. (Section 55. Study Programmes part 1, point 1,c). In this programme it is not done fully. The programme includes mandatory and elective or so called optional courses but there are no limited lective ones indicated that has to be done.

2. When formulating the results of the study course, the aim, objectives and study results of the study programme (knowledge, skills and competencies to be acquired in the course) are evaluated. In order to confirm that the results formulated in the study courses and the programme are interrelated and achievable, the mapping of the study results is performed. The mapping of study results shows how the study courses fit into the study programme and ensure the achievement of the study programme aim, allowing to ascertain that the study results are achieved gradually and logically, that the results are interconnected, they correspond to the aim and objectives of the study programme. Student-centred learning and teaching principles are taken into account. The variety of methods are used to achieve study results: lectures, seminars, practical work, independent work, laboratory work, group work, reports, student discussions during seminars, exchange of experience, discussions between students, etc. If students do not understand something then students can ask their questions and discuss questions with lecturers individually. It applies to all three university lectures as lectures take place together and all students are treated equally. When evaluating study results, evaluation principles of the Cabinet of Ministers of the Republic of Latvia Regulation No. 240/2014 „Regulations on the State Academic Education Standard" are taken into account: openness principle, evaluation review principle, evaluation obligatory principle, examination type diversity principle and compliance principle, including LLU Regulation of Studies. In the implementation of the joint study programme, each lecturer chooses the most suitable methods for the implementation of study courses, each cooperation partner has both a common and different approach in the selection of study implementation methods.

3. As indicated within the joint report of the experts in the assessment of the study field under internal quality assurance, surveys are conducted once per semester after every study course. Students provide their feedback on the courses, lecturers and overall quality of the course. Their feedback is taken into account for the next year. Students are also encouraged to inform the administration within the process of the course of some specific shortcomings that must be eliminated.

In case of concerns, students are advised to submit proposals, issues about the course of the study process and the content of the study programme in other forms as well. Students can submit



proposals: in writing or orally at the Faculty level - to the study programme director, the head of the department or the dean; in writing or orally at the LLU management level - the Studies Centre, the Vice-rector for Studies, the Rector, also the Board of Studies and the Senate, reviewing and approving the internal regulatory enactments of the Latvia University of Life Sciences and Technologies; anonymously, using the alert system at LLU - <https://www.llu.lv/lv/trauksmes-celsana>. The LLU Study Regulations, which are available to students at Mans LLU (My LLU), set out the procedure for submitting and reviewing issues. If a student has submitted a written complaint, then after its review, he or she will receive a written response if the review of the complaint has taken place without the student's presence (SER, Part II, paragraph 2.3.). More often students inform orally or in writing the director of the study program or the dean. During the negotiations solutions, compromises are sought in case of a specific problem (change of lecturer).

In relation to the graduate surveys during the study year 2016/2017, 10 graduates gave feedback on the study programme. 40 graduates were interviewed during the study year 2014/2015 while in the study year 2015/2016, 19 graduates of different years filled out the questionnaire evaluating the study process/programme.

Assessing the satisfaction of graduates with what they have learned in the programme in 2016/17 numbers showed that 30% were very satisfied, 50% were satisfied, 20% were almost satisfied. Analysing the answers of LLU, RSU and LU graduates, they are divided proportionally, namely, 33% of graduates work in the field of nutrition, 33% continue their work and 33% continue to study at a higher level (SER, Part II, paragraph 2.6.). Since the latest survey from employers LLU has taken into consideration the shortcomings identified first being involvement of specialists in the field in the implementation of the study programme and second - targeted involvement of students in research. In the experts' visit, it became clear that LLU is working on these questions. Students are now being provided with guest lecturers who are working in the market while still they are working on the other question regarding involvement of students in the research.

Although, it would be of great use to provide more recent numbers and conduct surveys from graduates and employers as the last survey of graduates are provided in academic year 2016/17 and the year of the last employer's survey is not even identified.

4. It is evident that the participation of ERASMUS+ mobility in the programme is low. During the last 7 years only 3 students have used such an opportunity. Master's students in ERASMUS + mobility have gone to the University of Helsinki (Finland) - 2 students; and the University of Agricultural Sciences and Veterinary Medicine of Cluj Napoca (Romania) - 1 student. Moreover, in the academic year 2019-2020, due to the global pandemic situation, ERASMUS+ partner universities refused to admit students. The procedure of students' mobility is clear. Before mobility, students coordinate the chosen study courses with the director of the study programme (prepare the Intentional Protocol), the choice of courses is implemented taking into account the study program plan and the interests of the student. The acquired study courses at ERASMUS partner university are LLU recognized by preparing the Recognition Protocol.

During the period 2013-2020 foreign students have not studied in the programme, the joint master's study programme "Nutrition Science" does not provide for such an opportunity.

## **Conclusions by specifying the strengths and weaknesses**

Overall, LLU is following the trends of the market and are constantly improving the courses of the study programme according to the demands. The content is relevant and complementary, and it complies with the aims of the study programme. LLU is conducting surveys for quality of studies improvement although, they lack newest data regarding graduates and employers surveys. The study course plan lacks limited elective courses which are needed according to Law on Higher education institutions. Student participation in ERASMUS + mobility is very low.

Strengths:

1. Following the trends of the market and are constantly improving the courses of the study programme;
2. The content of the study courses is relevant and complementary, and it complies with the aims of the study programme;
3. Involvement of lecturers who are experts in the field;
4. Conducting regular surveys and using other tools to conduct the level of quality of the studies;

Weaknesses:

1. Survey results regarding latest academic years of graduates and employers are lacking;
2. Low involvement of students in ERASMUS+ mobility programme;
3. No limited elective courses implemented within the study programme.

### **3. Resources and Provision of the Study Programme**

#### **Analysis**

1. Students use the new building of LLU with a modern study and research base for food technology studies and research. The following laboratories can be used for development of Master's theses: Laboratory of Food Processes, Microbiology Laboratory, Biotechnology Laboratory, etc. As well as being highly equipped with technical resources LU House of Nature and LU House of Science are mainly used for the study process. LU laboratories of the Faculty of Biology, Chemistry and Medicine are used for laboratory works and development of Master's theses. RSU Medical Education Technology center provides its premises for study process, development of practical skills.

Students have at their disposal the resources of all three universities libraries. There are rich repositories of information resources - hard copies of books and e-resources. Students have permanent access to various databases of evidence-based research.

Study and informative provision is made in many kinds of providing information. As have been stated during on-site visits, the teaching staff prepares video lectures, arranges discussion rooms, provides individual visits to laboratories, prepares online lectures with the opportunity to learn the lectures again (as recordings).

The joint academic master's study programme "Nutrition Science" is implemented by LLU, RSU and LU and each higher education institution has its own e-environments. According to the student's statements, on the one hand, three different platforms allows them to try different ways and learn different applications, but on the other it would be much easier to use one platform for study programme.

Financial provision is in accordance with the LLU financial strategy, management and action policy. The use of financial resources is implemented by the LLU Financial Planning Center. The distribution of revenues and expenditures of the general budget is made yearly by the LLU Senate approval. The funding allows for the implementation of student education, scientific work, research work.

2. Not applicable

#### **Conclusions by specifying the strengths and weaknesses**

The joint academic master's study programme "Nutrition Science" provides a great opportunity to students to use all the material and technical resources from all three universities. The resources of the study programme fully ensure a high-quality study process, possibility to perform research works and development of Master's thesis.

Strengths:

1. Good material and technical resource base - students are able to use the material and technical resources of all three universities.

Weaknesses:

2. Three different e-environments from different higher education universities.

#### **4. Teaching Staff**

##### **Analysis**

1. Data is provided in the Description of the Study Programme, paragraph 4.1, (Table 4.1.1) which details the breakdown of teaching staff on the programme. The data shows that there have been a number of changes in the composition of teaching staff in LLU, with promotions to higher grades of Associate Professor or Professor. The core teaching staff has not changed significantly during the reporting period, providing stability in core teaching areas. A number of past graduates of the programme have now been recruited to participate on the study programme in supervision of Masters theses.

In 2019/2020, there were 38 staff teaching on the programme from across the three Universities, with 8 of these from LLU, all of whom were Assistant Professor, Associate Professor or Professor grade.

2. The study programme complies with the requirements set forth in Section 55, Paragraph one, Clause 3 of the Law on Institutions of Higher Education (the link <https://likumi.lv/ta/en/en/id/37967>) as the requirements states that not less than a total of five professors and associate professors, who are elected to academic positions in the relevant higher education institution, are taking part in the implementation of the compulsory part and the elective part of master's study programme 'Nutrition Science'. Data is provided in the Description of the Study Programme, paragraph 4.1, (Table 4.1.1) which details the breakdown of teaching staff on the programme. LLU has four Professors, 3 Associate Professors and 1 Assistant Professor who teach on courses and supervise Masters theses on the Nutrition Science study programme.

3. Not applicable

4. LLU has 4 Professors, 3 Associate Professors and 1 Assistant Professor who teach on courses and supervise Masters theses on the Nutrition Science study programme.

An International Scientific conference is organized every four years in 'Nutrition and Health', with contributors from the three Universities involved in the programme, together with international experts in Nutrition related areas of research. This conference ensures that the LLU Professors and Assistant/Associate Professors remain up to date on international developments and have the opportunity to network with other international and national colleagues in the scientific research area.

Evidence of LLU academic staff participation in research projects relevant to the study programme are provided in SER II, paragraph 4.5, Description of the Study Programme as follows:

- 12% of the lecturers of the master's study programme implemented projects of the state research programme "Sustainability of Agricultural Resources for the Production of Quality and Healthy Food in Latvia (AgroBioRes, 2014-2018)";
- FP7 KBBE 2013-7-613781 "Enhancing of legumes growing in Europe through sustainable cropping for protein supply for food and feed (EUROLEGUME)" (2014-2017), was implemented by 2% of

lecturers of the master's study programme;

- The EEA Norwegian Financial Mechanism project NFI/R/2014/11 "Innovative approach to hullless spring cereals and triticale use from human health perspective" (2015-2016) was implemented by 2% of the lecturers of the master's study programme;
- COST Action CA18101 project "Sourdough biotechnology network towards novel, healthier and sustainable food and bioprocesses" (2018-2021) is implemented by 2% of the lecturers of the doctoral study programme;
- CI & CIDETS Research Centre project "Psycho-social motivations associated with food choices and eating practices " (2016-2019) was implemented by 2% of the lecturers of the master's study programme;
- ERANET project ERASysAPP "Systems biology platform for the creation of lean-proteome Escherichia coli strains" (2015-2018) was implemented by 2% of the lecturers of the master's study programme;
- European Maritime and Fisheries Fund project 16-00-FP1101-000005 "Production of structured fish forcemeat from Baltic Sea fish and its use in fish products" (2017-2018) was implemented by 7% of the lecturers of the master's study programme.

A list of publications and patents for LLU academic staff is provided in Annex 5. Since 2014, LLU academic staff on the Nutrition Science programme have published 154 articles/conference proceedings. Additionally, there are 4 active patents listed as at 31.12.2020.

The expertise of academic staff in areas of research above ensures that students are provided opportunities for Masters theses in state research programme projects, or projects funded by EAFRD or European funding.

5. The collaboration across the partner Universities involves joint implementation of implementation of specific modules eg. "Nutritional Supplements and Food Additives" and "Novel Foods and Genetically Modified Organisms" which are jointly delivered by lecturers of LU and LLU and the module "Medical Nutrition for the Treatment of Chronic Diseases" is jointly delivered by lecturers of RSU and LU. The cooperation of the teaching staff on the study programme takes place in the following areas:

- a) Organizing the entrance examination
- b) Updating and development of study courses (at least once per year)
- c) Preparation of study materials
- d) Research projects
- e) Supervision of Masters Theses
- f) Organization of the international scientific conference "Nutrition and Health"

At the onsite visit it was clear that there is good collaboration across the three Universities with the teaching staff and Programme Directors. There is clear enthusiasm and passion for the study programme and the students and all academics are involved in research projects which enhance the study course and modules.

## **Conclusions by specifying the strengths and weaknesses**

There is a high caliber of academic staff contributing to the study programme from LLU, with 4 Professors, 3 Associate Professors and 1 Assistant Professor who teach on courses and supervise Masters theses on the Nutrition Science study programme.

Strengths:

1. High caliber of academic staff contributing to the study programme in LLU
2. Good collaboration across the three partner Universities in the joint study programme
3. Good research output by academic staff at LLU, including 154 publications/conference proceedings and 4 patents.

Weaknesses:

No Weaknesses identified

## 5. Assessment of the Compliance of the Study Programme "Nutrition Science"

### Requirements

- 1 1. The sample of the diploma to be issued for the acquisition of the study programme complies with the procedure by which state-recognised documents of higher education are issued.

**Assessment of compliance:** Fully compliant

A master's diploma (see the Annex Sample of the joint master's study programme "Nutrition Science" Diploma and Diploma Supplement) is issued to a person who has acquired an accredited master's study programme and fulfilled all the requirements specified in the relevant state education standard (according to the Republic of Latvia Cabinet Regulation No. 202). The standard requirements are defined in the Cabinet of Ministers regulation No. 240/2016 „Regulations on the State Academic Education Standard“. A diploma supplement in Latvian and a diploma supplement in English language is attached to the diploma. The diploma is awarded on the basis of the Decision of the Master Examinations Commission of Latvia University of Life Sciences and Technologies.

- 2 2. Documents confirming that the higher education institution/ college will provide the students with the options to continue the acquisition of education in another study programme or at another higher education institution/ college (a contract with another accredited higher education institution/ college), in case the implementation of the study programme is discontinued.

**Assessment of compliance:** Fully compliant

The Testimony (provided in the Annex (Testimony\_Nutrition Science), signed by University of Latvia (hereinafter LU), Riga Stradins University (hereinafter RSU) and Latvia University of Life Sciences and Technologies (hereinafter LLU), in accordance with LU Constitution, RSU Constitution and LLU Constitution and Cooperation agreement of 29 November 2004 on realisation of joint academic master's study programme „Nutrition Science“ (hereinafter Programme), code 45722, certify the following: accordance with the Law on Higher Education Institutions Section 55 part 8 and Cabinet Regulation No 795 adopted 11 December 2018 „Regulations Regarding Licensing of Study Programmes“ 13.4 point, in cases, if the study programme is not accredited due to the action (activity or failure to act) of the higher education institution, LU, RSU and LLU undertake (1.1.) to provide an opportunity for students who have begun their studies in the discontinued programme to continue their education in other LU, RSU and LLU study programme.

- 3 3. Document confirming that the higher education institution/ college guarantees to the students a compensation for losses if the study programme is not accredited or the licence of the study programme is revoked due to the actions of the higher education institution/ college (actions or failure to act) and the student does not wish to continue the studies in another study programme.

**Assessment of compliance:** Fully compliant

The Testimony (see Annex (Testimony\_Nutrition Science), signed by University of Latvia (hereinafter LU), Riga Stradins University (hereinafter RSU) and Latvia University of Life Sciences and Technologies (hereinafter LLU), in accordance with LU Constitution, RSU Constitution and LLU Constitution and Cooperation agreement of 29 November 2004 on realisation of joint academic master's study programme „Nutrition Science“ , code 45722, certify the following: accordance with the Law on Higher Education Institutions Section 55 part 8 and Cabinet Regulation No 795 adopted 11 December 2018 „Regulations Regarding Licensing of Study Programmes“ 13.4 point, in cases, if the study programme is not accredited due to the action (activity or failure to act) of the higher education institution, LU, RSU and LLU undertake (1.2.) for students who have been studying in a discontinued programme and are not willing to continue their studies, LU, RSU and LLU guarantee the compensation of the paid tuition fee.

- 4 4. The teaching staff members involved in the implementation of the study programme are proficient in the official language in accordance with the regulations on the level of the official language knowledge and the procedures for testing official language proficiency for performing professional duties and office duties.

**Assessment of compliance:** Fully compliant

The document „LLU confirmation concerning the study field “Health Care” (see Annex) issued by Latvia University of Life Sciences and Technologies (No. 2.4.-6.2/24, Jelgava, 03.06.2021) addressed to the Academic Information Centre, confirms that official language proficiency of the LLU teaching staff involved in the implementation of the relevant study programme „Nutrition Science“ of the study field „Health Care“ complies with the regulations on the level of the official language knowledge and the procedures for testing official language proficiency for performing professional duties and office duties.

- 5 5. The teaching staff members to be involved in the implementation of the study programme have at least B2-level knowledge of a related foreign language, if the study programme or any part thereof is to be implemented in a foreign language.

**Assessment of compliance:** Not relevant

- 6 6. At least five teaching staff members with a doctoral degree are among the academic staff of an academic doctoral study programme, at least three of which are experts approved by the Latvian Science Council in the respective field of science. At least five teaching staff members with a doctoral degree are among the academic staff of a professional doctoral study programme in arts.

**Assessment of compliance:** Not relevant

- 7 7. The academic staff of the academic study programme complies with the requirements set forth in Section 55, Paragraph one, Clause 3 of the Law on Institutions of Higher Education.

**Assessment of compliance:** Fully compliant

Not less than five professors and associate professors altogether, who are elected to academic positions in the relevant higher education institution, are taking part in the implementation of the compulsory part and the elective part of master's study programme „Nutrition Science“, it complies with the requirements set forth in Section 55, Paragraph one, Clause 3 of the Law on Institutions of Higher Education (the link <https://likumi.lv/ta/en/en/id/37967>).

- 8 8. The sample of the study agreement complies with the mandatory provisions to be included in the study agreement.

**Assessment of compliance:** Fully compliant

According to Republic of Latvia Cabinet of Minister Regulation No. 70, the following provisions of behalf of the student should be provided: the name, surname, personal identification code and address of the declared place of residence, the student's obligations to comply with the internal regulatory enactments that regulate the activities of the higher education institution or college. On behalf of Higher Education Institution: name of the higher education institution or college, legal address, registration number in the register of educational institutions, accreditation data (registration date and number of the accreditation sheet), bank details, name, surname, position and authorization of the rector of the higher education institution, the title, duration, amount in credit points of the study programme, degree to be obtained or professional qualification, type of studies, certain main responsibilities of the higher education institution (to provide the student with access to internal regulatory enactments that regulate the activities of the higher education institution or college, tuition fee, etc.), agreement of the parties on the processing of the student's personal data; the conditions for terminating the contract, etc.

- 9 9. The descriptions of the study courses and the study materials have been prepared in all languages in which the study programme is implemented, and they comply with the requirements set forth in Section 56.1, Paragraph two and Section 56.2, Paragraph two of the Law on Institutions of Higher Education.

**Assessment of compliance:** Fully compliant

he requirements set forth in Section 561 (the Law on Institutions of Higher Education) the link <https://likumi.lv/ta/en/en/id/37967>, Study Course:

1) Higher education institutions and colleges shall determine the procedures by which study courses shall be developed and included in study programmes in order to ensure the achievement of the common learning outcomes. The description of a study course shall be prepared and approved in accordance with the procedures specified by the higher education institution and college.

(2) The study course descriptions (see Annex 10) comply with the requirements set forth in Section 561 (the Law on Institutions of Higher Education) as follows:

1) The requirement "to define the requirements for the commencement of the acquisition of the study course" is implemented by "Prior knowledge" section in the course description form;

2) the requirement "to determine the aims for the implementation of the study course and the planned learning outcomes" is being implemented by information given in Course abstract and learning outcomes;

3) The requirement "to outline the content of the study course necessary for the achievement of learning outcomes, contain the study course calendar, mandatory and supplementary literature, indicate other sources of information" is being implemented in the sections Course Content (Calendar) and the Reading lists are provided.

4) The requirement "to describe the organization and tasks for the independent work of students" is being implemented by the section Description of the organization and tasks of students' independent work;

5) The requirement "to determine the evaluation criteria of learning outcomes" is being implemented by the section in the description of the course Criteria for Evaluating Learning Outcomes;

[14 July 2011]

**Section 562 Study Module**

(1) A study module may be developed for the structuring and transparency of the study programme, the establishment of a flexible study route and for the professional orientation of students, ensuring the planning thereof in a manner suitable also for lifelong learning.

(2) The description of the study module shall determine:

1) the learning outcomes achievable as a result of the acquisition of the study module;

- 2) the plan of the study work time;
  - 3) the study courses included in the study module.
- 10 10. The study programme complies with the valid professional standard or the requirements for the professional qualification (if there is no professional standard required for the relevant occupation) provided that the completion of the study programme leads to a professional qualification.

**Assessment of compliance:** Not relevant

- 11 11. Academic study programmes provided for less than 250 full-time students may be implemented and less than five professors and associated professors of the higher education institution may be involved in the implementation of the mandatory and limited elective part of these study programmes provided that the relevant opinion of the Council for Higher Education has been received in accordance with Section 55, Paragraph two of the Law on Institutions of Higher Education.

**Assessment of compliance:** Fully compliant

The relevant opinion of the Council of Higher Education has been received (see Annex The decision of the Council of Higher Education\_Nutrition Science) in accordance with Section 55, Paragraph two of the Law on Institutions of Higher Education Regarding the feasibility of delivery of the academic master programme Nutrition Science by Latvia University of Life Sciences and Technologies (No. 1.10/27, 23 April 2020, Riga). After assessing the information being at the disposal of the Council of Higher Education (hereinafter the CHE) and other conditions and circumstances concerning the matter and in view of the fact that Latvia University of Life Sciences and Technologies has met the requirements of the Law on Higher Education Institutions in respect to the number of teaching personnel as well as the importance of the programme, the CHE, in accordance with Part 2 of Section 55 of the Law on Higher Education Institutions, the CHE decided to support the implementation of the academic master programme "Nutrition Science" with less than 250 full-time students by Latvia University of Life Sciences and Technologies.

- 12 12. The study programme complies with the State Academic Education Standard or the Professional Higher Education Standard.

**Assessment of compliance:** Fully compliant

The study programme „Nutrition Science“ complies (volume of study programme, duration of the study programme implementation, parts of the study programme and their amount (compulsory, limited electives, electives), i.e. the amount of final work, amount of contact hours (%), compulsory content according to standard requirements, compliance with the requirements of the Environmental Protection Law and the Civil Protection and Disaster Management Law, degree or Professional qualification to be awarded or degree and professional qualification, evaluation of the study programme acquisition) complies with the State Academic Education Standard (see Annex 6 Compliance of the joint academic master's study programme „Nutrition Science“ with the state academic education Standard).

- 13 13. The joint study programmes comply with the requirements prescribed in Section 551, Paragraphs one, two, and seven of the Law on Institutions of Higher Education (if applicable).

**Assessment of compliance:** Fully compliant

The joint Master's study programme "Nutrition Science" complies to the requirements of the Law on Higher education Institutions Section 551 (see Annex 4 Conformity of the joint Master's Study Programme "Nutrition Science" to the requirements of the Law on Higher education Institutions).



Requirement: A higher education institution together with a partner institution is entitled to develop a study programme and take part in the implementation thereof by entering into a relevant written agreement thereon. Conformity of study programme: Cooperation agreement signed on November, 29 2004 and Amendment in Cooperation agreement signed on March 14, 2007 (see Other annexes "Cooperation agreement");

Requirement: It shall be formed by the parts of study programmes of the same level of higher education of a higher education institution and partner institutions. Conformity of study programme: The study programme implements the University of Latvia, Rīga Stradiņš university and the Latvia University of Life Sciences and Technologies, universities are the same level of higher education institutions, as well as partner institutions;

Requirement: The higher education institution and partner institutions involved in the implementation thereof shall each implement at least one-tenth of the entire relevant study programme. Conformity of study programme: Latvija University of Life Sciences and Technologies implements at least one-tenth of the entire study programme.

Requirement: There are unified requirements in respect of the implementation of the joint study programme, the final examinations, the awarding of degrees to be acquired in studies and vocational qualifications; the parts of the joint study programme together form a unified content and consecutive joint study programme. Conformity of study programme: There are unified requirements in the implementation of the joint study programme (set in the Cooperation agreement): admission requirements, the joint study process realisation, terms and conditions, the final examination, the requirements for the degree awarding, a unified content and consecutive joint study programme realisation. Joint study programme has the programme board (programme directors from partner universities, as well as the representatives of the partner universities' faculties) which coordinates, implements and ensures the unified study programme realisation.

Requirement: A higher education institution and partner institutions have jointly developed a quality assurance system for the joint study programme. Conformity of study programme: Each partner university has worked out a quality assurance system, the quality assurance system of partner university has been integrated in the realisation of joint master's study programme;

Requirement: Mobility of students is ensured, which also allows the acquisition of a commensurate and essential part of the joint study programme in one or several partner institutions. Conformity of study programme: Mobility of students are ensured, students study the study courses correspondingly to the study plan in several partner universities;

Requirement: Mobility of the academic staff is ensured in order that they might also teach at least at one partner institution. Conformity of study programme: Mobility of academic staff is ensured, academic staff implements study process at least at one partner university.

Requirement: A degree or vocational qualification to be awarded as a result of the acquisition of the joint study programme is specified, complying with the system of degrees or vocational qualification to be acquired in studies, specified in the laws and regulations of Latvia. Conformity of study programme: Comply (see Annex "Sample of the joint master's study programme Nutrition Science diploma & diploma supplement");

Requirement: The content of the diploma as well as of the annex appended to the diploma to be issued jointly by a higher education institution and partner institutions has been specified.

Conformity of study programme: Comply (see Annex "Sample of the joint master's study programme Nutrition Science diploma & diploma supplement").

- 14 14. Each member of the academic staff has either publications published in reviewed editions within the last six years, including international editions (if they have worked for a shorter period of time, the number of publications shall be in proportion to the work period), or artistic creation achievements (for instance, exhibitions, films, theatre performances, and concert activity), or a five-year practical work experience (except for the experience in the implementation of the study programme) in accordance with the Law on Institutions of Higher Education.

**Assessment of compliance:** Fully compliant

Each member of the academic staff has either publications published in reviewed editions within the last six years, including international editions (see Annex 3 Teaching staff CV).

15 R5 - Overall rating

**Assessment of compliance:** Fully compliant

The joint Master's study programme "Nutrition Science" complies to the requirements set forth in the Law on Institutions of Higher Education and other regulatory enactments.

**Requirements (R6-R8)**

- 1 R6 - The compliance of the study provision, scientific support (if applicable), informative provision (including libraries), material and technical provision, and financial provision with the conditions for the implementation of the study programme and ensuring the achievement of the learning outcomes.

**Assessment of compliance:** Fully compliant

The provision of studies, scientific support, informative provision, material and technical provision and financial provision meet the conditions for the implementation of the study program and ensuring the achievement of study results.

The joint academic master's study programme "Nutrition Science" provides a great opportunity to students to use all the material and technical resources from all three universities. The resources of the study programme fully ensure a high-quality study process, possibility to perform research works and development of Master's thesis.

- 2 R7 - The compliance of the qualification of the academic staff members, visiting professors, visiting associate professors, visiting docents, visiting lecturers, and visiting assistants with the conditions for the implementation of the study programme and the provisions set out in the respective regulatory enactments.

**Assessment of compliance:** Fully compliant

The study programme complies with the requirements set forth in Section 55, Paragraph one, Clause 3 of the Law on Institutions of Higher Education (the link <https://likumi.lv/ta/en/en/id/37967>) as the requirements states that not less than a total of five professors and associate professors, who are elected to academic positions in the relevant higher education institution, are taking part in the implementation of the compulsory part and the elective part of master's study programme 'Nutrition Science'. Data is provided in the Description of the Study Programme, paragraph 4.1, (Table 4.1.1) which details the breakdown of teaching staff on the programme. LLU has four Professors, 3 Associate Professors and 1 Assistant Professor who teach on courses and supervise Masters theses on the Nutrition Science study programme.

- 3 R8 - The study programme leading to the master or doctoral degree is based on the advances and findings in the relevant field of science or artistic creation.

**Assessment of compliance:** Fully compliant

Innovative solutions (product innovation) are introduced in the implementation of study courses, integrating research findings into studies. In the development of Master theses, students have the opportunity to implement innovations in research by learning new, modern analytical equipment for obtaining research results (for example, gastrointestinal tract simulation equipment, understanding it's basic principles and data processing and discussion), etc.

## Conclusions by specifying the strengths and weaknesses

The name of the study programme, the degree, the aims, objectives, learning outcomes, and admission requirements are interrelated. The title of the study programme includes "Nutrition Science", which is an interdisciplinary field based on the fundamental sciences (chemistry, biology) and medicine (anatomy, physiology), as well as the regularities of health sciences and food science in maintaining and strengthening human health.

Overall, LLU is following the trends of the market and are constantly improving the courses of the study programme according to the demands. The content is relevant and complementary, and it complies with the aims of the study programme. Involvement of guest lecturers is beneficial for following the work market. LLU is conducting surveys for quality of studies improvement although, they lack newest data regarding graduates and employers surveys. Student participation in ERASMUS + mobility is very low.

The joint academic master's study programme "Nutrition Science" provides a great opportunity to students to use all the material and technical resources from all three universities. The resources of the study programme fully ensure a high-quality study process, possibility to perform research works and development of Master's thesis.

There is a high calibre of academic staff contributing to the study programme from LLU, with 4 Professors, 3 Associate Professors and 1 Assistant Professor who teach on courses and supervise Masters theses on the Nutrition Science study programme.

.

### Strengths

1. The name of the study programme, the degree, the aims, objectives, learning outcomes, and admission requirements are interrelated. The degree to be awarded - Master of Health Sciences in Nutrition Science is closely related to the content of the study programme and study results to be achieved.
2. Following the trends of the market and are constantly improving the courses of the study programme;
3. The content of the study courses is relevant and complementary, and it complies with the aims of the study programme;
4. Involvement of guest lecturers;
5. Conducting regular surveys and using other tools to conduct the level of quality of the studies;
6. Good material and technical resource base - students are able to use the material and technical resources of all three universities.

### Weaknesses

1. The learning outcomes of the optional modules on the study programme do not always align with the aims and objectives of the study programme. A careful mapping of all modules available on the programme should be carried out against the learning outcomes of the programme.
2. Survey results regarding latest academic years of graduates and employers are lacking;
3. Low involvement of students in ERASMUS+ mobility programme.
4. Three different e-environments from different higher education universities.

## Evaluation of the study programme "Nutrition Science"

Evaluation of the study programme:

Excellent

## **6. Recommendations for the Study Programme "Nutrition Science"**

### **Short-term recommendations**

- |   |
|---|
| 1. Annual feedback collection of graduates and employers will provide comparable data for constant study programme quality improvement.                           |
| 2. To conclude a new inter-university agreement on the implementation of the joint academic master's study programme "Nutrition Science" between LU, RSU and LLU. |
| 3. A careful mapping of all modules available on the programme should be carried out against the learning outcomes of the programme.                              |
| 4. To review the study results and formulate them in 5-9 study results.   |

### **Long-term recommendations**

- |  |
|--|
| 1. Finding relevant international partners will motivate students to participate in ERASMUS+ mobility programme. |
|--|

## **III. Assessment of the Requirements for the Study Field and the Relevant Study Programmes**

### **III. Assessment of the Requirements for the Study Field and the Relevant Study Programmes**

#### **Assessment of the Requirements for the Study Field**

| Requirements   | Requirement Evaluation | Comment  |
|--|------------------------|--|
| <p>R1 - Pursuant to Section 5, Paragraph 21 of the Law on Institutions of Higher Education, the higher education institution/ college shall ensure continuous improvement, development, and efficient performance of the study direction whilst implementing their internal quality assurance systems:</p> | <p>Fully compliant</p> | <p>LLU implements an internal quality assurance system, within which the quality of higher education is ensured; a mechanism has been developed for the development of study programmes and supervision of their performance; the criteria for the evaluation of students' results have been developed, which enable the reassurance of the achievement of the envisaged learning outcomes; the internal procedures and mechanisms for assuring the qualification of the academic staff and quality of their work have been established; the infrastructure has been developed in accordance with the level of scientific development of the study programme. Joint quality assurance system ensures continuous improvement, development and efficient performance of the study field.</p> |
| <p>R2 - The cooperation with different organisations from Latvia and abroad implemented within the study direction ensures the achievement of the aims of the study direction.</p>   | <p>Fully compliant</p> | <p>This programme is unique in Latvia and each of the partner Universities (LLU, LU, RSU) bring complementary expertise to the programme of study. There are also a broad range of contributors to the programme from Industry, Clinical expertise and the Ministry of Health and international organizations. The cooperation with different organizations from Latvia and abroad implemented within the study field ensures the achievement of the aims of the study field.</p>  |

| Requirements   | Requirement Evaluation | Comment  |
|--|------------------------|--|
| R3 - Compliance of scientific research and artistic creation with the development level thereof (if applicable).   | Fully compliant        | Teaching staff is involved in scientific research in different ways. Involvement of study programme teachers in research is organised through preparation of project applications and implementation of projects, organization of international scientific conferences and events, cooperation developed within the framework of mobility, etc. Teachers of the study field are preparing and publishing articles in the issues that are indexed in SCOPUS and Web of Science (WoS) databases, preparing study materials, books, scientific monographs (SER, Part I, paragraph 4.4). Teachers gave numerous examples during the meetings about their involvement in scientific research. Teachers' involvement in scientific activities is beneficial for the students because they are using updated teaching material. |
| R4 - Elimination of the shortcomings and deficiencies identified during the previous assessment of the study direction, if it has been conducted, or the implementation of the provided recommendations. | Partially compliant    | Four recommendations (To strengthen lecturers' English language skills; To review the enrolment rules for the study programme, taking into account the knowledge and skills of applicants from different fields; Promotion of international cooperation, projects, mobility; Labour market demand has not been assessed in the implementation of this programme) have been fully implemented. Three recommendations are not directly applicable to LLU. The recommendation "To improve the democratic principles in organization and implementation of the study programmes; the better involvement of students in the students' self-government is also desirable" has not been fully implemented.  |

#### Assessment of the Requirements for the Relevant Study Programmes of the Study Field

| <b>No.</b> | <b>Study programme</b>    | <b>R5</b>       | <b>R6</b>       | <b>R7</b>       | <b>R8</b>       | <b>Evaluation of the study programme (excellent, good, average, poor)</b> |
|------------|---------------------------|-----------------|-----------------|-----------------|-----------------|---|
| 1          | Nutrition Science (45722) | Fully compliant | Fully compliant | Fully compliant | Fully compliant | Excellent   |

### **The Dissenting Opinions of the Experts**

No the dissenting opinions of the experts were identified.