Annex No. 1



# Accreditation Expert Group Report on Higher Education Programme

Food Technology and Safety

Level - Master

Akaki Tsereteli State University

**Evaluation Date(s)** 

11/05/2023,

**Report Submission Date** 

Tbilisi 2023

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# Information about a Higher Education Institution<sup>1</sup>

| Name of Institution Indicating its<br>Organizational Legal Form | Legal Entity of Public Law<br>Akaki Tsereteli State University |
|---|--|
| Identification Code of Institution                              | 212693049  |
| Type of the Institution   | University   |

### **Expert Panel Members**

| Chair (Name, Surname,      | Dario Compagnone, University of          |
|----------------------------|--|
| HEI/Organisation, Country) | Teramo, Italy                            |
| Member (Name, Surname,     | Zhuzha Khatchapuridze, Agricultural      |
| HEI/Organisation, Country) | University of Georgia                    |
| Member (Name, Surname,     | Elene Sordia, Georgian Technical         |
| HEI/Organisation, Country) | University                               |
| Member (Name, Surname,     | Nino Jojua International Black Sea       |
| HEI/Organisation, Country) | University, Georgia                      |
| Member (Name, Surname,     | Dimitri Tsanava , Caucasus International |
| HEI/Organisation, Country) | University, Georgia                      |

<sup>&</sup>lt;sup>1</sup> In the case of joint education programme: Please indicate the HEIs that carry out the programme. The indication of an identification code and type of institution is not obligatory if a HEI is recognised in accordance with the legislation of a foreign country.

| I. | Information on the education programme |
|----|--|
|----|--|

|  | grannie                    |
|--|----------------------------|
| Name of Higher Education Programme (in Georgian) | სურსათის ტექნოლოგია და     |
| Georgian   | უვნებლობა                  |
| Name of Higher Education Programme (in English)  | Food Technology and Safety |
| Level of Higher Education                        | II                         |
| Qualification to be Awarded <sup>2</sup>         | Master of Food Technology  |
| Name and Code of the Detailed Field              | 0721 Food Processing       |
| Indication of the right to provide the           |                            |
| teaching of subject/subjects/group of            |                            |
| subjects of the relevant cycle of the general    |                            |
| education <sup>3</sup>                           |                            |
|  |                            |
| Language of Instruction                          | Georgian                   |
|  |                            |
| Number of ECTS credits                           | 120 ECTS credits           |
|  |                            |
| Programme Status (Accredited/                    | -New                       |
| Non-accredited/                                  |                            |
| Conditionally                                    |                            |
| accredited/new/International                     |                            |
| accreditation)                                   |                            |
| Indicating Relevant Decision (number,            |                            |
| date)  |                            |
| Additional requirements for the                  |                            |
| programme admission (in the case of an           |                            |
| art-creative and/or sports educational           |                            |
| programme, passing a creative                    |                            |
| tour/internal competition, or in the case of     |                            |
| another programme, specific requirements         |                            |
| for admission to the                             |                            |
| programme/implementation of the                  |                            |
| programme)                                       |                            |

<sup>&</sup>lt;sup>2</sup> In case of implementing a joint higher education programme with a higher education institution recognized in accordance with the legislation of a foreign country, if the title of the qualification to be awarded differs, it shall be indicated separately for each institution.

<sup>&</sup>lt;sup>3</sup> In case of Integrated Bachelor's-Master's Teacher Training Educational Programme and Teacher Training Educational Programme

# II. Accreditation Report Executive Summary

# General Information on Education Pogramme<sup>4</sup>

A master's educational program of "Food Technology" was operating in the accredited mode at Akaki Tsereteli State University from 2012 to 2019, and from 2019 to now it has been operating in the authorized mode. During the years different actions have been taken to improve the program according to external evaluation recommendations, HEI quality assurance and Faculty suggestions, labor market analysis and student performances surveys. In 2019 the program was not accredited and was later changed taking into account recommendations of the previous panel and suggestions given by external international experts.

The program consists of 120 ECTS (4 semesters) of 80 are compulsory. Compulsory ECTS include 8 classical courses (5 ECTS each including English), a short research project (5 ECTS), a professional practice period (5 ECTS) and Master thesis (30 ECTS). Elective subjects are divided in 3 different blocks food technology and food safety (15 ECTS mandatory among the 25 offered) and general engineering (10 ETS mandatory among the 20 offered)

# Overview of the Accreditation Site Visit

The Accreditation Site Visit was held on 11/05/2023, interviews were carried out with ATSU rector, Head of Administration, Dean of the Faculty, Quality Assurance office, Self evaluation team, Heads of the program, academics involved, representatives of the companies involved, students and Alumni. A visit to laboratory resources and the library was also done during the visit. The visit took place in a constructive environment; all the participants had a collaborative attitude. The sessions were conducted in line with the relevant ethical norms. All the meetings were chaired by the Chairman of the panel, apart from the meeting with students and alumni, chaired by Dimitri Tsnanava and the meeting with Quality Assurance Office that was chaired by prof. Nino Jojua. Each meeting started with a short presentation of the panel, then questions by the chair and questions/clarifications by the rest of the panel. Visit to the resources of the library (including electronic) and labs were also regularly carried out. As a whole and as reported in detail for each of the Stardards interviews and visit was very helpful for the assembly of the final report.

### • Brief Overview of Education Programme Compliance with the Standards

**Standard 1** Substantially complies with requirements, as standard 1.1, 1.3, 1.4 Complies with requirements; standard 1.2 and standard 1.5 Substantially complies with requirements

**standards 2,3,4,5** - Complies with requirements as standards 4.2 and 5.3 Substantially complies with requirements, all other requirements standards Complie with requirements;

<sup>&</sup>lt;sup>4</sup> When providing general information related to the programme, it is appropriate to also present the quantitative data analysis of the educational programme.

# Recommendations

### standard 1.2

-Change the skill relevant to research activity harmonizing it with Level VII of National Qualification Networks

- Modify the outcome develop technologies for new products, including products with different functional purposes- or insert subjects in the Sillabi modules

### standard 1.5

- The Georgian low about FOOD/FEED SAFETY, VETERINARY AND PLANT PROTECTION CODE (2012 year) distinguish the following terms food (სურსათი) and feed (საკვები) from each other. In some Georgian syllabi, the terms are used interchangeably - people consume food (სურსათი), not feed products (კვების პროდუქტს ან საკვებს), thus correct term has to be used for the name of following subjects:

Modern methods of research of food products - საკვები პროდუქტების კვლევის თანამედროვე მეთოდები - სურსათის კვლევის თანამედროვე მეთოდები

Food production processes and modern equipment - კვების საწარმოთა პროცესები და მოწყოგბილობები - სურსათის საწარმოთა პროცეხები და მოწყობილობები

Food industry processes and equipment - კვების საწარმოთა დაგეგმარების პრინციპები - სურსათის საწარმოთა დაგეგმარების პრინციპები

Food chemistry issues - კვების ქიმიიის საკითხები - სურსათის ქიმიის საკითხები

Additionally, correct terms should be used (applied) within every syllabus (even in those, that are not mentioned above).

### standard 4.2

- A system of measuring and monitoring research outputs on regular basis should be put in place

### standard 5.3

- The quality assurance office should regularly monitor the availability of program resources.

# Suggestions for Programme Development

# standard 1.1

- The objective: manage traditional technologies of food products (meat, milk, bakery and confectionery, beverages) independently, at a highly professional level, or their modernization, considering the principles of healthy nutrition, in accordance with the latest achievements in the field; meat, milk, bakery and confectionery, beverages.
- it is suggested to rephrase the sentence highlighting that since the subjects are elective competences on the whole set of technologies cannot be taken by each student

# standard 1.2

-It is suggested to eliminate from the document's links to website of other Universities

- It is suggested to rephrase the outcomes -"Uses engineering and managerial competencies to solve relevant problems in food production" and "manage traditional technologies of food products **(meat, milk, bakery and confectionery, beverages)** independently, at a highly professional level, or their modernization, considering the principles of healthy nutrition, in accordance with the latest achievements in the field" to better specify that the subjects are elective and the students might not have the entire set of outcome

# standard 1.4

- Insertion of more fundamental general subjects within one module including comprehensive understanding of thermal and non-thermal processes

- Insertion of food safety management and auding subjects
- Insertion of Food laws and regulations module

standard 1.5

<sup>0</sup> It is suggested to add more English literature (The programme takes into account internalization, thus for programme development it would be great to use more foreign language literature, scientific articles);

<sup>0</sup> It is suggested to insert sterilization, pasteurization, UHT, and aseptic filling in the "Food production processes and modern equipment" subject as well as introduce practical on drying kinetics

<sup>0</sup> It is suggested to specify what kind of indicators (quality and safety) are measured during the laboratory work in the subject of food chemistry.

<sup>0</sup> It is suggested to insert practical lectures in the course "Modern Methods of Food Products Research" and to change the name avoiding the term modern standard 2.1

- It suggested to limit the use of Russian-language based literature to the strictly necessary for Master thesis bibliography

# standard 2.2

it is suggested renew and revise constantly the agreements for the development professional and research based stages

### standard 3.2

It is suggested the involvement of students in various types of scientific activities (i.e. conferences or dissemination activities)

It is suggested to stimulate the use international scientific databases in writing the master's thesis (pertaining to 2.1 also for prerequisites)

### standard 4.2

It is suggested the publication of research outputs on more internationally renowned journals

It is suggested to improve the participation to international conferences

### standard 4.4

it is suggested renew and revise constantly the agreements for the development professional and research-based stage

- Brief Overview of the Best Practices (if applicable)<sup>5</sup>
- Information on Sharing or Not Sharing the Argumentative Position of the HEI

After looking at the argumentative position of Akaki Tsereteli University, the experts' panel decided to leave the recommendations as they are. In fact, ATSU is asking for explanations on the necessity of monitoring research products; Looking at the documents they mentioned in the argumentative position, there is just a list of documents the faculty is providing, but no evidence that research products are monitored (i.e. number of publications, quality, research grants, patents...). Thus, at any level they run this (Dept, faculty, Master's degree group) they should give evidence. In case the activity is done, they need to provide it.

# • In case of re-accreditation, it is important to provide a brief overview of the achievements and/or the progress (if applicable)

<sup>&</sup>lt;sup>5</sup> A practice that is exceptionally effective and that can serve as a benchmark or example for other educational programme/programmes.

# III. Compliance of the Programme with Accreditation Standards

# **1. Educational Programme Objectives, Learning Outcomes and their Compliance with the Programme**

A programme has clearly established objectives and learning outcomes, which are logically connected to each other. Programme objectives are consistent with the mission, objectives and strategic plan of the HEI. Programme learning outcomes are assessed on a regular basis to improve the programme. The content and consistent structure of the programme ensure the achievement of the set goals and expected learning outcomes.

#### **1.1 Programme Objectives**

Programme objectives consider the specificity of the field of study, level and educational programme, and define the set of knowledge, skills and competences a programme aims to develop in graduate students. They also illustrate the contribution of the programme to the development of the field and society.

# Summary and Analysis of the Education Programme's Compliance with the Requirements of the Component of the Standard

The Objectives of the program are realistic in line with required skills considered for the field of study. They are also achievable in the timeframe of the program. The main aim is to prepare competitive specialist in the field of food technology and safety, who will possess competences and skills for the local labor market demand. Food companies have been involved in the definition of the objectives and in the program as well as international partnership. The program is consistent with the University and Faculty strategy. Based on the objectives, the program will contribute to the development of the society and the territory with particular emphasis on curricula dedicated to food area in general. Objectives are public and accessible and were shared among all the stakeholders involved in the program.

#### **Evidences/Indicators**

 $\circ$   $% \ensuremath{\mathsf{C}}$  Component evidences/indicators, including the relevant documents and interview results

- o Educational Program;
- <sup>0</sup> Mission, objectives and strategy of the HEI,
- <sup>o</sup> Self-evaluation report,
- o interviews,

#### **Recommendations:**

• Proposal (s), which should be considered by the HEI, the programme to meet the requirements of the standard

None

#### Suggestions for the Programme Development

- The objective: *manage traditional technologies of food products (meat, milk, bakery and confectionery, beverages) independently, at a highly professional level, or their modernization,* is suggested to be updated considering the principles of healthy nutrition, in accordance with the latest achievements in the field; meat, milk, bakery and confectionery, beverages.
- it is suggested to rephrase the sentence highlighting that since the subjects are elective competences on the whole set of technologies cannot be taken by each student

#### **Evaluation**

| Component                   | Complies with<br>requirements | Substantially<br>complies with<br>requirements | Partially<br>complies with<br>requirements | Does not<br>comply with<br>requirements |
|-----------------------------|-------------------------------|--|--|---|
| 1.1 Programme<br>Objectives | Х                             |  |  |   |
| 1.2 December 1              | Loarning Outcomos             |  |  |   |

Please, evaluate the compliance of the programme with the component

#### **1.2 Programme Learning Outcomes**

> The learning outcomes of the programme are logically related to the programme objectives and the specifics of the study field.

> Programme learning outcomes describe knowledge, skills, and/or the responsibility and autonomy that students gain upon completion of the programme.

The learning outcomes substantially complies with the objectives of the program, and with the level of the National Qualifications Framework (Level VII). Competences and skills fall into the area of food processing and control and have been organized according to a labour market survey carried out in the pre-Covid period (up to 2020).

The learning outcomes, based on the information gathered through the SER include the basic knowledge, skills and responsibility. Interview with employee, during the site-visit confirmed that learning outcomes are in line with market demand. They were also developed in collaboration with all the university components. The learning outcomes are mainly consistent with the cycle of study; however, some of the achievable skills reported appears overestimated, in particular "planning and conducting original research in the field of food technology and safety using modern instrumental methods ...." According to the National qualification Network, Learning outcomes of Level VII complies with "Searching new, original ways of solving difficult problems in strange and multifaceted environment or/and implementing a research independently by following principles of academic integrity, by using latest methods and approaches". Planning research activity and creating new knowledge pertain to Level VIII "Planning and implementing a research by following the principles of academic integrity; Elaborating new research or analytical methods or/and approaches, which is oriented on creating new knowledge (on level necessary for internationally reviewed publications)". This should be realigned. Some other adjustments are necessary a for better definition of the following learning outcomes:

-develop technologies for new products, including products with different functional purposes- none of the individual subject itself provides the outcome. It is necessary to either and explicit the teaching activity or modify the outcome eliminating new product design

*-uses engineering and managerial competencies to solve relevant problems in food production*-Managerial subjects are elective, students might graduate without choosing subjects related to managerial competences. It is suggested to modify the outcome accordingly. -manage traditional technologies of food products (meat, milk, bakery and confectionery, beverages) independently, at a highly professional level, or their modernization, considering the principles of healthy nutrition, in accordance with the latest achievements in the field. Subjects are elective, it is suggested to modify the outcome accordingly.

In SER a link to university of Kaunas is inserted, this is not mandatory since this is not a joint or double degree program, the link has a lot of sub-links to be searched and infos are not straightforward; moreover, since updates or changes are not in control of ATSU it is suggested to be removed (as any other international link) by the documents of the program.

#### **Evidences/Indicators**

Self-evaluation report (SER) A document confirming labor market and employers demand A document providing information about program learning outcomes based on the alumni answers Interview result Educational Program

#### **Recommendations:**

• Proposal (s), which should be considered by the HEI, the programme to meet the requirements of the standard

- Change the skill relevant to research activity harmonizing it with Level VII of National Qualification Networks

-modify the outcome *develop technologies for new products, including products with different functional purposes*- or insert subjects in the Sillabi modules

#### **Suggestions for Programme Development**

#### • Non-binding suggestions for programme development

-It is suggested to eliminate from the documents links to website of other Universities – It is suggested to rephrase the outcomes -"Uses engineering and managerial competencies to solve relevant problems in food production" and "manage traditional technologies of food products (meat, milk, bakery and confectionery, beverages) independently, at a highly professional level, or their modernization, considering the principles of healthy nutrition, in accordance with the latest achievements in the field" to better specify that the subjects are elective and the students might not have the entire set of outcome

Please, evaluate the compliance of the programme with the component

| Component | Complies with requirements | Substantially<br>complies with<br>requirements | Partially<br>complies with<br>requirements | Does not<br>comply with<br>requirements |
|-----------|----------------------------|--|--|---|
|-----------|----------------------------|--|--|---|

| 1.2 Programme<br>Learning<br>Outcomes | Х |  |
|---------------------------------------|---|--|
|                                       |   |  |

#### **1.3 Evaluation Mechanism of the Programme Learning Outcomes**

> Evaluation mechanisms of the programme learning outcomes are defined; the programme learning outcomes evaluation cycle consists of defining, collecting and analyzing data necessary to measure learning outcomes;

> Programme learning outcomes assessment results are utilized for the improvement of the programme.

# Summary and Analysis of the Education Programme's Compliance with the Requirements of the Component of the Standard

The mechanism used to evaluate the learning outcomes is logically arranged and easy to understand. Both indirect (self-assessment of the student, assessment of the employer and the head of the practice facility) and direct (tests, presentation, discussion, laboratory classes etc.) methods are used in the assessment of learning outcomes. University continuously supports staff to develop skills in the design, measurement and analysis of learning outcomes, they are familiar with the methods of evaluation of learning outcomes. Single and multiple intermediate assessment is envisaged before the final assessment of the learning outcomes. Different methodologies are used to determine the achievement of the learning outcomes defined in the components of the educational program, such as tests, demonstrations, presentations, practical/theoretical task performance, group work, participation in a discussion, performance of laboratory work.

Both direct and indirect methods are used in the assessment of learning outcomes; indirect assessment methods include self-assessment of the student, assessment of the employer and the head of the practice facility. ATSU continuously supports staff to develop skills in the design, measurement and analysis of learning outcomes, organising workshops and training, and provides electronic presentations and materials to staff. Therefore, staff is familiar with the methods of evaluation of learning outcomes. As further validation for stakeholders, 50 employers in the local region were engaged in the evaluation of learning outcomes.

#### **Evidences/Indicators**

Educational Program Program Learning Outcome Assessment Mechanism Alumni and Employer Survey Results Self Evaluation Report Survey with employers (June, 2020)

#### **Recommendations:**

• The programme Proposal (s), which should be considered by the HEI, the programme to meet the requirements of the standard

none

#### Suggestions for the Programme Development

• Non-binding suggestions for programme development none

#### **Evaluation**

Please, evaluate the compliance of the programme with the component

| Component   | Complies with<br>requirements | Substantially<br>complies with<br>requirements | Partially<br>complies with<br>requirements | Does not<br>comply with<br>requirements |
|---|-------------------------------|--|--|---|
| 1.3 Evaluation<br>Mechanism of<br>the Programme<br>Learning<br>Outcomes | Х                             |  |  |   |

#### 1.4. Structure and Content of Education Programme

> The Programme is designed according to HEI's methodology for planning, designing and developing of education programmes.

> The Programme structure is consistent and logical. The content and structure of the programme ensure the achievement of programme learning outcomes. The qualification to be granted is consistent with the content and learning outcomes of the programme.

Education program is compliance with the requirement of the component of the standard, it includes 120 ECTS (4 semester) and gives students the opportunity to choose some subjects (as curricula) related to food safety and food technology-according to the field of interest. The programme content and structure are consistent with the qualification to be awarded and ensure the achievement of programme learning outcomes. All stakeholders, such as university staff, students, graduated, employers were engaged in the program development. International foreign expert have been also involved for a preliminary evaluation of the program.

The programme structure is logical and is moving from simple to complex. Based on the curriculum it is possible to trace that after taking introductory and basic courses, students can choose specialization courses. Additionally, admission preconditions to the next third level are adequate. Structure of the programs might be improved with small changes given here as suggestions: a) insertion of more fundamental subject in one module (food processing technology, or unit operations) this may include also comprehensive understanding of thermal and non-thermal processes, b) in *food safety management* give not only HACCP principles but also develop skills necessary to effectively handle and audit food safety management systems (treat subjects about foodborne illnesses would be interesting), c) an elective subject related to

Food laws and regulations would be interesting (i.e. food labeling regulations, regulation about nutritional and health claims, requirements of food packaging).

### **Evidences/Indicators**

 $^{\circ}$   $\,$  Component evidences/indicators, including the relevant documents and interview results

Educational program structure, website, interviews

#### **Recommendations:**

• Proposal (s), which should be considered by the HEI, the programme to meet the requirements of the standard.

none

#### Suggestions for the programme development

- Insertion of more fundamental general subjects within one module including comprehensive understanding of thermal and non-thermal processes

- Insertion of food safety management and auding subjects
- Insertion of Food laws and regulations module

#### Evaluation

Please, evaluate the compliance of the programme with the component

| Component   | Complies with requirements | Substantially<br>complies with<br>requirements | Partially<br>complies with<br>requirements | Does not<br>comply with<br>requirements |
|---|----------------------------|--|--|---|
| 1.4 Structure<br>and Content of<br>Educational<br>Programme | Х                          |  |  |   |

#### 1.5. Academic Course/Subject

> The content of the academic course / subject and the number of credits ensure the achievement of the learning outcomes defined by this course / subject.

> The content and the learning outcomes of the academic course/subject of the main field of study ensure the achievement of the learning outcomes of the programme.

➤ The study materials indicated in the syllabus ensure the achievement of the learning outcomes of the programme.

The content of each academic course / subject corresponds to the learning outcomes of this course / subject. Compulsory literature listed in the syllabi correspond to course/subject learning outcomes, and ensure the achievement of programme learning outcomes. The literature is updated, however, mostly in Georgian, literature in English will allow the student

and teacher to widen the perspective since this is the technical language used for the subject area. This is given as suggestion.

The program has target marks for each learning outcome. A main scheme for monitoring learning outcomes has been developed for the program; accordingly, data of learning outcomes are compared with target marks. The monitoring of the study results of the program is carried out by the head of the program and the quality assurance service of the Faculty of Engineering and Technology according to the established standards. For example, if 60% of students get at least 71 points in master thesis, the assumption is that all learning outcomes were achieved.

The name of the subjects are in compliance with the relevant issues, however in some cases it may be advisable to provide students with more fundamental knowledge and to better specify the programs. In particular, in "Food production processes and modern equipment" the word "modern" appear only in the English translation. Moreover, the information provided is basic; it is advisable to teach thermal treatment, i.e. sterilization, pasteurization, UHT, and aseptic filling. The same lecture includes drying kinetics; it is suggested to introduce practicals.

In addition, the subject, "Modern methods of research of food products", that has been adjusted according also to the international experts, presents laboratory activities conducted only during the first half of the semester. These laboratory activities are directed to food but the instrumentation used cannot be defined recent or modern. Only the second part of the subject refers to the more recent methods of food analysis using chromatography, but no practical activities can be carried in the lab of the faculty. ATSU is aware of the importance of the instrumentation, since has planned to purchase laboratory chromatography equipment in the upcoming years (2025-2026). Until then, no practicals will be run. ATSU, however, has an agreement with Batumi Shota Rustaveli State University for the use of this kind of instrumentation; according to this agreement students are able to conduct part of their scientific research at the Western Georgian Regional Centre of Chromatography. It is suggested to insert practical activities using this instrumentation during the semester and organize practical sessions (2-3) with Batumi University for all the students for the semester. It is also suggested to change the name of subject in food analysis, instrumental analysis or similar.

For the subject "food chemistry", it is suggested to specify what kind of indicators (quality and safety) are measured during the laboratory work.

As a final remark some terms used does not appear in line with the actual Georgian law; recommendations on the use of Georgian terms in some definitions are also given.

#### **Evidences/Indicators**

• Educational programme with enclosed syllabi;

- Curriculum map;
- Monitoring of achievement of program learning outcomes and target marks
- Results of the interview.

#### **Recommendations:**

- Proposal (s), which should be considered by the HEI, the programme to meet the requirements of the standard
- The Georgian low about FOOD/FEED SAFETY, VETERINARY AND PLANT PROTECTION CODE (2012 year) distinguish the following terms food (სურსათი) and feed (საკვები) from each other. In some Georgian syllabi, the terms are used interchangeably people consume food (სურსათი), not feed products (კვების პროდუქტს ან საკვებს), thus correct term has to be used for the name of following subjects:

Modern methods of research of food products - საკვები პროდუქტების კვლევის თანამედროვე

მეთოდები - სურსათის კვლევის თანამედროვე მეთოდები

Food production processes and modern equipment - კვების საწარმოთა პროცესები და მოწყოგბილობები - სურსათის საწარმოთა პროცეხები და მოწყობილობები

Food industry processes and equipment - კვების საწარმოთა დაგეგმარების პრინციპები - სურსათის საწარმოთა დაგეგმარების პრინციპები

Food chemistry issues - კვების ქიმიიის საკითხები - სურსათის ქიმიის საკითხები

Additionally, correct terms should be used (applied) within every syllabus (even in those, that are not mentioned above).

#### Suggestions for the programme development

• It is suggested to add more English literature (The programme takes into account internalization, thus for programme development it would be great to use more foreign language literature, scientific articles);

• It is suggested to insert sterilization, pasteurization, UHT, and aseptic filling in the "Food production processes and modern equipment" subject as well as introduce practicals ondrying kinetics

• It is suggested to specify what kind of indicators (quality and safety) are measured during the laboratory work in the subject of food chemistry.

• It is suggested to insert practical lectures in the course "Modern Methods of Food Products Research" and to change the name avoiding the term modern

#### Evaluation

Please, evaluate the compliance of the programme with the component

| Component                       | Complies with requirements | Substantially<br>complies with<br>requirements | Partially<br>complies with<br>requirements | Does not<br>comply with<br>requirements |
|---------------------------------|----------------------------|--|--|---|
| 1.5. Academic<br>Course/Subject |                            | Х  |  |   |

#### **Compliance of the Programme with the Standard**

|  | Complies with requirements               |   |
|--|--|---|
| 1. Educational programme<br>objectives, learning outcomes<br>and their compliance with the | Substantially complies with requirements | Х |
| programme  | Partially complies with requirements     |   |
|  | Does not comply with requirements        |   |

# 2. Methodology and Organisation of Teaching, Adecuacy of Evaluation of Programme Mastering

Prerequisites for admission to the programme, teaching-learning methods and student assessment consider the specificity of the study field, level requirements, student needs, and ensure the achievement of the objectives and expected learning outcomes of the programme.

#### 2.1 Programme Admission Preconditions

The HEI has relevant, transparent, fair, public and accessible programme admission preconditions and procedures that ensure the engagement of individuals with relevant knowledge and skills in the programme to achieve learning outcomes.

# Summary and Analysis of the Education Programme's Compliance with the Requirements of the Component of the Standard

Describe, analyse and evaluate the compliance of the education programme with the requirements of the component of the standard, based on the information collected through the self-evaluation report (SER), the enclosed documents and site-visit.

The prerequisites and procedures for admission to the program are in compliance with the existing legislation and are related to the content of the program. For enrollment, individuals must pass the exam in the specialty and prove to possesses the basic knowledge and skills to achieve learning outcomes. ATSU has developed examination questions (120 in total). Questions are open-ended and are related to different food processing methods. They also listed references from which individuals can study and prepare for the exam. Additionally, knowledge of English at the B1 level is compulsory; it can be proved by passing an exam at ATSU, presenting an appropriate certificate/document or by the appendix of the bachelor's diploma – mastering the English language. Despite the admission preconditions about English, students are not using English-language scientific literature for master thesis; this was evident from the inspection of the master thesis. In the bibliography, mostly Russian-language literature was indicated that was mainly provided by the supervisors of the master thesis, according to the interviews. Since ATSU has access to bibliographic resources in English (e.g. international databases of scientific journals) it suggested to limit the use of Russian-language based literature to the strictly necessary.

Admission requirements and procedures for the program are fair, public and accessible. To ensure the smooth administration of the educational process, ATSU defines the number of students (12 students per year in this case) based on the resources of the institution and the specificity of the programme.

#### **Evidences/Indicators**

- Component evidences/indicators, including the relevant documents and interview results
- o SER
- o Interview results
- o Prerequisites, document regarding the exam in specialty
- o Admission exam questions

#### **Recommendations:**

• Proposal (s), which should be considered by the HEI, the programme to meet the requirements of the standard

none

### Suggestions for the programme development

• Non-binding suggestions for the programme development

It suggested to limit the use of Russian-language based literature to the strictly necessary for Master thesis bibliography

#### Evaluation

Please, evaluate the compliance of the programme with the component

| Component                                   | Complies with requirements | Substantially<br>complies with<br>requirements | Partially<br>complies with<br>requirements | Does not<br>comply with<br>requirements |
|---|----------------------------|--|--|---|
| 2.1 Programme<br>Admission<br>Preconditions | Х                          |  |  |   |

# 2.2. The Development of Practical, Scientific/Research/Creative/Performing and Transferable Skills

Programme ensures the development of students' practical, scientific/research/creative/performing and transferable skills and/or their involvement in research projects, in accordance with the programme learning outcomes.

# Summary and Analysis of the Education Programme's Compliance with the Requirements of the Component of the Standard

Describe, analyse and evaluate the compliance of the education programme with the requirements of the component of the standard, based on the information collected through the self-evaluation report (SER), the enclosed documents and site-visit.

The program ensures the development of practical skills based on the laboratory activities and the training courses called "Professional Practice". These activities are planned in accordance with the learning outcomes and are correspondent to the level of education. Within the framework of "professional practice", laboratory-practical work is held in a real production environment. ATSU ensures in advance the number of students and the period of the professional practice based on the agreement with employers. The distribution of students to practice facilities is done according to the topic of the master's thesis. Students are supervised by experienced researchers and by personnel at the company. Among the consistent number of agreements reported it was noticed that 3 are already expired, 1 has no signature and 7 will expire in September 2023; it is suggested renew and revise constantly the agreements for the development professional and research based stages.

Students have the opportunity to participate in local and international events. Interested students are able to take part in scientific-research work and accordingly present the results of their work at the student conference. Student conferences are annually held within the framework of student days.

#### **Evidences/Indicators**

- Component evidences/indicators, including the relevant documents and interview results
- Results of the interviews
- Self Evaluation Report
- Respective agreements / memorandums with economic agents, employers
- Conferences
- Projects.

#### **Recommendations:**

• Proposal (s), which should be considered by the HEI, the programme to meet the requirements of the standard none

#### none

#### Suggestions for the programme development

• Non-binding suggestions for the programme development

it is suggested renew and revise constantly the agreements for the development professional and research based stages

#### **Evaluation**

| Component   | Complies<br>with<br>requirement<br>s | Substantiall<br>y complies<br>with<br>requiremen<br>ts | Partially<br>complies<br>with<br>requiremen<br>ts | Does not<br>comply<br>with<br>requiremen<br>ts |
|---|--------------------------------------|--|---|--|
| Development<br>esearch/creative/p<br>nd transferable skil | X                                    |  |   |  |

Please, evaluate the compliance of the programme with the component

#### 2.3. Teaching and Learning Methods

The programme is implemented by use student-oriented teaching and learning methods. Teaching and learning methods correspond to the level of education, course/subject content, learning outcomes, and ensure their achievement.

# Summary and Analysis of the Education Programme's Compliance with the Requirements of the Component of the Standard

Describe, analyse and evaluate the compliance of the education programme with the requirements of the component of the standard, based on the information collected through the self-evaluation report (SER), the enclosed documents and site-visit.

The program provides opportunity to acquire theoretical knowledge and practical skills. It considers the direct participation of the staff implementing the program and through the independent work of the master's student. Different learning methods are implemented as verbal, practical, demonstration, laboratory method, discussion/debate, and ensure the engagement of students in the learning process at the appropriate level. Additionally, it the development of critical and analytical skills by the students is given; electronic resources for distance learning are present and ensures to face critical situations and invited lecturing from other institutions.

#### **Evidences/Indicators**

Component evidences/indicators, including the relevant documents and interview results
Self Evaluation Report
Results of the Interviews and visit
Educational programme
Syllabus of study components
Curriculum map
Monitoring of achievement of program leargning outcomes and target marks

#### **Recommendations:**

• Proposal (s), which should be considered by the HEI, the programme to meet the requirements of the standard

none

#### Suggestions for the programme development

Non-binding suggestions for the programme development
none

#### **Evaluation**

Please, evaluate the compliance of the programme with the component

| Component                                | Complies with requirements | Substantially<br>complies with<br>requirements | Partially<br>complies with<br>requirements | Does not<br>comply with<br>requirements |
|--|----------------------------|--|--|---|
| 2.3. Teaching<br>and learning<br>methods | Х                          |  |  |   |

#### 2.4. Student Evaluation

Student evaluation is conducted in accordance with the established procedures. It is transparent, reliable and complies with existing legislation.

# Summary and Analysis of the Education Programme's Compliance with the Requirements of the Component of the Standard

Describe, analyse and evaluate the compliance of the education programme with the requirements of the component of the standard, based on the information collected through the self-evaluation report (SER), the enclosed documents and site-visit.

Student evaluation is conducted under the order of the Minister of Education and Science of Georgia dated January 5, 2007, No. 3 "Rules for calculating credits for higher educational programs.

The components, methods, and criteria of assessment of each academic course/subject are transparent, reliable, accessible, and known in advance by the students. The student receives feedback about their achievements during the on-going evaluation process and after the midterm and final exams. Additionally, a student has the right to ask for clarification of the result. Credits obtained only after the student has achieved the learning outcomes planned by the syllabus;

The evaluation system includes positive ((A) Excellent – 91–100 points; (B) Very good – 81–90; (C) Good – 71–80; (D) Satisfactory – 61–70; (E) Sufficient – 51–60 ) and negative ((FX) Could not pass – 41-50 points, (F) Failed – 40 points and less,) assessment levels. In case of receiving an FX in the study component of the educational program, a makeup exam is scheduled in at least 5 days after the announcement of the results of the final exam. When student fails the subject he/she has to retake the subject. The assessment of the student's work considers both interim and final assessments. The criteria of interim assessment varies according to the subjects and can include assessment of discussions, presentations, laboratory activities, analytical essay, practical works in the factories etc. For each subject final exam is not worth more than 40 points. The minimum threshold of the grade received by the student in the final exam is 15 points. The requirements for the academic style of the thesis are known in advance by the students and are considered for the evaluation of the thesis.

#### **Evidences/Indicators**

Component evidences/indicators, including the relevant documents and interview results

SER Results of the Interviews and visit Educational programme / Syllabus

#### **Recommendations:**

• Proposal (s), which should be considered by the HEI, the programme to meet the requirements of the standard none

#### Suggestions for the programme development

Non-binding suggestions for programme development

#### **Evaluation**

Please, evaluate the compliance of the programme with the component

| Component               | Complies with requirements | Substantially<br>complies with<br>requirements | Partially<br>complies with<br>requirements | Does not<br>comply with<br>requirements |
|-------------------------|----------------------------|--|--|---|
| 2.4. Student evaluation | Х                          |  |  |   |

#### Compliance with the programme standards

|  | Complies with requirements               | X |
|--|--|---|
| 2. Methodology and<br>Organisation of Teaching, Adequacy<br>of Evaluation of Programme | Substantially complies with requirements |   |
| of Evaluation of Programme<br>Mastering  | Partly complies with requirements        |   |
|  | Does not comply with requirements        |   |

#### 3. Student Achievements, Individual Work with Them

The programme ensures the creation of a student-centered environment by providing students with relevant services; promotes maximum student awareness, implements a variety of activities and facilitates student involvement in local and/or international projects; proper quality of scientific guidance is provided for master's and doctoral students.

#### 3.1 **Student Consulting and Support Services**

Students receive consultation and support regarding the planning of learning process, improvement of academic achievement, and career development from the people involved in the programme and/or structural units of the HEI. A student has an opportunity to have a diverse learning process and receive relevant information and recommendations from those involved in the programme.

# Summary and Analysis of the Education Programme's Compliance with the Requirements of the Component of the Standard

Describe, analyse and evaluate the compliance of the education programme with the requirements of the component of the standard, based on the information collected through the self-evaluation report (SER), the enclosed documents and site-visit.

ATSU has various student information channels, through which students get indications on the proper management of the educational process. Students have the opportunity to use the electronic platform to write applications. This facilitates rapid communication with the administration. The university has a career development service that provides students with info on employment opportunities. In addition, for the protection of students' rights, an ombudsman service is present and students may use it if needed.

ATSU maintain constant contact with graduates; this is confirmed by the creation of an Alumni network for graduates. On the basis of interviews and of the documents presented about the program, students enrolled in the program receive all the necessary assistance and counseling for the full implementation of the educational process. They can access the material and structures, that are arranged and adapted for students with different needs. The institution also operates an internship program for students wishing to undergo internships in various structural units of the administration.

#### **Evidences/Indicators**

0 Component evidences/indicators, including the relevant documents and interview results

educational program; electronic resources for managing the educational process; the regulation of the educational process; self-assessment report; interviews

### **Recommendations:**

0 Proposal (s), which should be considered by the HEI, the programme to meet the requirements of the standard

None

#### **Suggestions for Programme Development**

0 Non-binding suggestions for programme development

None

#### **Evaluation**

Please, evaluate the compliance of the programme with the component

| Component  | Complies with requirements | Substantially<br>complies with<br>requirements | Partially<br>complies with<br>requirements | Does not<br>comply with<br>requirements |
|--|----------------------------|--|--|---|
| 3.1 Student<br>Consulting and<br>Support<br>Services | Х                          |  |  |   |

#### 3.2. Master's and Doctoral Student Supervision

A scientific supervisor provides proper support to master's and doctoral students to  $\triangleright$ perform the scientific-research component successfully.

Within master's and doctoral programmes, ration of students and supervisors enables to  $\triangleright$ perform scientific supervision properly.

### Summary and Analysis of the Education Programme's Compliance with the Requirements of the Component of the Standard

Describe, analyse and evaluate the compliance of the education programme with the requirements of the component of the standard, based on the information collected through the self-evaluation report (SER), the enclosed documents and site-visit.

According to the rule of execution and evaluation of the master's thesis, each master's student is provided with a qualified supervisor. This has been confirmed by the results of interviews

with students, graduates and the heads of the educational program. Master's degree students who are in the 4th semester, as well as students who are in additional semester, can work on a master's thesis. Master's students are given the choice to have a co-supervisor to widen the scientific research vision. Maximum amount of master thesis projects per teacher is set at 2 by ATSU to allow proper supervision.

As a result of the interviews with the students, the active involvement of the supervisors in master's thesis was evident. However, students demonstrated a passive related in terms of involvement in other university activities. They do not usually take part in the scientific conferences and seminars organized by the institution. As previously stated in 2.1, generally do not use international scientific databases during the completion of their master's thesis. This appears the result of the lack of interest and information; they only rely on the sources indicated by the supervisor. It is then suggested a more active involvement of the students in ATSU activities (i.e. conferences and dissemination activities) and a specific action by the supervisors to stimulate the use of bibliographic resources in English.

| Data related to the supervision of master's/ doctoral students |      |  |  |  |
|--|------|--|--|--|
| Quantity of master/PhD theses                                  | 17   |  |  |  |
| Number of master's/doctoral students                           | 14   |  |  |  |
| Ratio  | 1.21 |  |  |  |

#### **Evidences/Indicators**

Component evidences/indicators, including the relevant documents and interview results

- Master's educational program;
- • the regulation of the educational process;
- Self-assessment report
- Interviews conducted during the visit
- Protected master theses

#### **Recommendations:**

• Proposal (s), which should be considered by the HEI, the programme to meet the requirements of the standard

o None

#### Suggestions for the programme development

• Non-binding suggestions for the programme development

It is suggested the involvment of students in various types of scientific activities (i.e. conferences or dissemination activitities)

It is suggested to stimulate the use international scientific databases in writing the master's thesis (pertaining to 2.1 also for prerequisites)

#### Evaluation

Please, evaluate the compliance of the programme with the component

| Component  | Complies with requirements | Substantially<br>complies with<br>requirements | Partially<br>complies with<br>requirements | Does not<br>comply with<br>requirements |
|--|----------------------------|--|--|---|
| 3.2. Master's<br>and Doctoral<br>Students<br>Supervision | Х                          |  |  |   |

#### **Compliance with the programme standards**

|   | Complies with requirements               | X |
|---|--|---|
| 3. <b>Students Achievements,</b><br>Individual Work with them | Substantially complies with requirements |   |
| individual work with them                                     | Partly complies with requirements        |   |
|   | Does not comply with requirements        |   |

#### 4. Providing Teaching Resources

Human, material, information and financial resources of educational programme ensure sustainable, stable, efficient and effective functioning of the programme and the achievement of the defined objectives.

#### 4.1 Human Resources

> Programme staff consists of qualified persons, who have necessary competences in order to help students to achieve the programme learning outcomes.

> The number and workload of programme academic/scientific and invited staff ensures the sustainable running of the educational process and also, proper execution of their research/creative/performance activities and other assigned duties. Quantitative indicators related to academic/scientific/invited staff ensure programme sustainability.

 $\succ$  The Head of the Programme possesses necessary knowledge and experience required for programme elaboration, and also the appropriate competences in the field of study of the programme. He/she is personally involved in programme implementation.

> Programme students are provided with an adequate number of administrative and support staff of appropriate competence.

# Summary and Analysis of the Education Programme's Compliance with the Requirements of the Component of the Standard

Describe, analyse and evaluate the compliance of the education programme with the requirements of the component of the standard, based on the information collected through the self-evaluation report (SER), the enclosed documents and site-visit.

| Number of the staff<br>involved in the programme<br>(including academic,<br>scientific, and invited staff) | Number of<br>Programme<br>Staff | Including the<br>staff with<br>sectoral<br>expertise <sup>6</sup> | Including the<br>staff holding<br>PhD degree in<br>the sectoral<br>direction <sup>7</sup> | Among them,<br>the affiliated<br>staff |
|--|---------------------------------|---|---|--|
| Total number of academic staff   | 18                              | 15  | 14  |  |
| - Professor  | 4                               | 4   | 4   | 4                                      |
| - Associate Professor  | 11                              | 11  | 10  | 11                                     |
| - Assistant-Professor  | 2                               |   | 2   | 2                                      |
| - Assistant  |                                 |   |   |  |
| Visiting Staff   |                                 |   |   | _                                      |
| Scientific Staff   | 1                               | 1   | 1   | _                                      |

The personnel implementing the program is\_engaged in accordance with the legislation and internal regulations of the HEI. The workload of the program appears well distributed among the teaching staff particularly for subjects strictly related to the field, Subjects are taught to people having competences demonstrated by scientific publications, projects, patents in the correspondent area. Most of the staff holds a PhD or equivalent title and/or is author or co-author of scientific papers/patents in the last 5 years. The majority of scientific work are published in peer-reviewed journals; this proves that, as a whole, the staff has the proper competence in the field to run the program. Some of the staff has no publication in the last 3-4 years. Presentations at Conferences is very high but concentrated mostly at local level in Conferences organized by ATSU. The Heads of the program have high experience in acdition to publications.

#### **Evidences/Indicators**

Component evidences/indicators, including the relevant documents and interview results

SER CVs Interviews

### **Recommendations:**

• Proposal (s), which should be considered by the HEI, the programme to meet the requirements of the standard None

### Suggestions for Programme Development

• Non-binding suggestions for programme development None

<sup>&</sup>lt;sup>6</sup> Staff implementing the relevant components of the main field of study

<sup>&</sup>lt;sup>7</sup> Staff with relevant doctoral degrees implementing the components of the main field of study

#### **Evaluation**

| Component              | Complies with requirements | Substantially<br>complies with<br>requirements | Partially<br>complies with<br>requirements | Does not<br>comply with<br>requirements |
|------------------------|----------------------------|--|--|---|
| 4.1 Human<br>Resources | Х                          |  |  |   |

Please, evaluate the compliance of the programme with the component

#### 4.2 Qualification of Supervisors of Master's and Doctoral Students

The Master's and Doctoral students have qualified supervisor/supervisors and, if necessary, cosupervisor/co-supervisors who have relevant scientific-research experience in the field of research.

# Summary and Analysis of the Education Programme's Compliance with the Requirements of the Component of the Standard

Describe, analyse and evaluate the compliance of the education programme with the requirements of the component of the standard, based on the information collected through the self-evaluation report (SER), the enclosed documents and site-visit.

Each of the staff involved in the program can supervise and co-supervise Master students (up to 2 students each). Despite each of the staff has paper published in the last 5 years, the majority of the papers are published on national journals and/or conference proceeding. Research outputs does not appears constantly monitored, for example, in Self Evaluation Report a generic number of publications is given together with projects funded without a timeframe. Considering the relevance given to the research activity in the whole program, and to internationalization, more publications in journals of higher impact according to the indicators accepted by the international scientific community is strongly advised together with participation to international conferences (also on-line for reductions of costs). This will allow collaboration and better integration in international community of research. Monitoring of the research outputs of the academics participating to the program (publications -including quality of them-, projects, communications at conferences, patents, products/processes developed) on a regular basis, is recommended, including the development of measurable indexes and policies for improving quality and quantity of the products at Master/Department level. This should be implemented and coordinated within the existing policy of ATSU. Monitoring will allow continuous control and improvement of the whole research outputs. Contribution of Master students to research outputs has to be also monitored.

#### **Evidences/Indicators**

Component evidences/indicators, including the relevant documents and interview results

- SER
- CVs
- interviews

#### **Recommendations:**

• Proposal (s), which should be considered by the HEI, the programme to meet the requirements of the standard

-A system of measuring and monitoring research outputs on regular basis should be put in place

#### Suggestions for the programme development

#### • Non-binding suggestions for programme development

Is is suggested the publication of research outputs on more internationally reknown journals It is suggested to improve the participation to international conferences

#### Evaluation

Please, evaluate the compliance of the programme with the component

| Component   | Complies with requirements | Substantially<br>complies with<br>requirements | Partially<br>complies with<br>requirements | Does not<br>comply with<br>requirements |
|---|----------------------------|--|--|---|
| 4.2<br>Qualification of<br>Supervisors of<br>Master's and<br>Doctoral<br>Students |                            | Х  |  |   |

#### 4.3 **Professional Development of Academic, Scientific and Invited Staff**

> The HEI conducts the evaluation of programme staff and analyses evaluation results on a regular basis.

> The HEI fosters professional development of the academic, scientific and invited staff. Moreover, it fosters their scientific and research work.

# Summary and Analysis of the Education Programme's Compliance with the Requirements of the Component of the Standard

Describe, analyse and evaluate the compliance of the education programme with the requirements of the component of the standard, based on the information collected through the self-evaluation report (SER), the enclosed documents and site-visit.

ATSU has a program for professional development of Administrative and Academic Staff; this includes support to business trips and trainings and scientific conferences, Trainings and workshops planned by the quality assurance service of ATSU on regular basis, Paid scientific creative leave of ATSU, Foreign language courses at the Continuing Education Center, Scientific conference services of ATSU. Evaluation of the performance of the staff is carried out every year. The academic staff involved in the programs actively participate and uses the opportunity given by ATSU as reported in Self Evaluation Report and revealed during the visit.

#### **Evidences/Indicators**

Component evidences/indicators, including the relevant documents and interview results
Self Evaluation Report
Interviews
Staff evaluation
Staff satisfaction survey

#### **Recommendations:**

• Proposal (s), which should be considered by the HEI, the programme to meet the requirements of the standard

• None

#### Suggestions for the programme development

• Non-binding suggestions for programme development

#### Evaluation

Please, evaluate the compliance of the programme with the component

| Component   | Complies with requirements | Substantially<br>complies with<br>requirements | Partially<br>complies with<br>requirements | Does not<br>comply with<br>requirements |
|---|----------------------------|--|--|---|
| 4.3<br>Professional<br>development of<br>academic,<br>scientific and<br>invited staff | Х                          |  |  |   |

#### 4.4. Material Resources

Programme is provided by necessary infrastructure, information resources relevant to the field of study and technical equipment required for achieving programme learning outcomes.

# Summary and Analysis of the Education Programme's Compliance with the Requirements of the Component of the Standard

Describe, analyse and evaluate the compliance of the education programme with the requirements of the component of the standard, based on the information collected through the self-evaluation report (SER), the enclosed documents and site-visit.

The master's program is implemented in the study halls of ATSU, in the library and computer center, in the training-production and research laboratories of the "Food Products Technologies" department, and in the enterprises involved in the implementation of the program. As previously reported in 1.5 the research laboratories needs to be implemented in terms of instrumentation. During the interviews it was reported that centralized labs development is also in progress by ATSU, this will be crucial for the achievement of the learning outcomes. In the meantime a suggestion has been given to cover the gap. The "dislocation" of activities and deep involvement of companies should be highly appreciated; the number of agreements are fully in line with the maximum number of students of the program (12). However, some agreements are expired and others are close to be expired, thus suggestion given in 2.2 apply also here.

#### **Evidences/Indicators**

Component evidences/indicators, including the relevant documents and interview results
Self evaluation Report
Agreements with Companies
Interviews
Visit to Library and labs

#### **Recommendations:**

• Proposal (s), which should be considered by the HEI, the programme to meet the requirements of the standard none

#### Suggestions for the programme development

 Non-binding suggestions for programme development
it is suggested renew and revise constantly the agreements for the development professional and research based stages

#### **Evaluation**

Please, evaluate the compliance of the programme with the component

| Component                 | Complies with requirements | Substantially<br>complies with<br>requirements | Partially<br>complies with<br>requirements | Does not<br>comply with<br>requirements |
|---------------------------|----------------------------|--|--|---|
| 4.4 Material<br>Resources | Х                          |  |  |   |

#### 4.5 Programme/Faculty/School Budget and Programme Financial Sustainability

The allocation of financial resources stipulated in the programme/faculty/school budget is economically feasible and corresponds to the programme needs.

# Summary and Analysis of the Education Programme's Compliance with the Requirements of the Component of the Standard

Describe, analyse and evaluate the compliance of the education programme with the requirements of the component of the standard, based on the information collected through the self-evaluation report (SER), the enclosed documents and site-visit.

ATSU will provide financial support for the program including the implementation of the infrastructures as mentioned in 4.4. The budget of the master's program calculated by ATSU financial and material resources management service, includes the expenses necessary for the implementation of the program components.

The main source of financing of ATSU is the income received from tuition fees for bachelor's, master's, doctoral and professional educational programs; from this the budget for the faculties is calculated.

Expenses are rationalized at faculty level according to the faculty projects and needs taking into account the last 5 years. Budget is then allocated according to the annual priorities document. Budget appears satisfactory considering the size of the program.

#### **Evidences/Indicators**

• Component evidences/indicators, including the relevant documents and interview results

Self Evaluation Report

Resolution of ATSU on approval of the budget

#### **Recommendations:**

• Proposal (s), which should be considered by the HEI, the programme to meet the requirements of the standard none

#### Suggestions for the programme development

• Non-binding suggestions for the programme development none

#### Evaluation

Please, evaluate the compliance of the programme with the component

| Component  | Complies with<br>requirements | Substantially<br>complies with<br>requirements | Partially<br>complies with<br>requirements | Does not<br>comply with<br>requirements |
|--|-------------------------------|--|--|---|
| 4.5. Programme/<br>Faculty/School Budget<br>and Programme<br>Financial<br>Sustainability | Х                             |  |  |   |

#### Compliance with the programme standard

|                                    | Complies with requirements               | X |
|------------------------------------|--|---|
| 4. Providing Teaching<br>Resources | Substantially complies with requirements |   |
|                                    | Partly complies with requirements        |   |
|                                    | Does not comply with requirements        |   |

### **5. Teaching Quality Enhancement Opportunities**

In order to enhance teaching quality, programme utilises internal and external quality assurance services and also, periodically conducts programme monitoring and programme review. Relevant data is collected, analysed and utilized for informed decision making and programme development.

#### 5.1 Internal Quality Evaluation

Programme staff collaborates with internal quality assurance department(s)/staff available at the HEI when planning the process of programme quality assurance, developing assessment instruments, and implementing assessment process. Programme staff utilizes quality assurance results for programme improvement.

# Summary and Analysis of the Education Programme's Compliance with the Requirements of the Component of the Standard

Describe, analyse and evaluate the compliance of the education programme with the requirements of the component of the standard, based on the information collected through the self-evaluation report (SER), the enclosed documents and site-visit.

The quality assurance system of Akaki Tsereteli State University is a system of internal assessment of educational, research and creative activities, which is guided by the "Law on Higher Education of Georgia", authorization and accreditation regulations, university charters, other legal documents and standards and promotes the university. to carry out its goals and mission.

The quality assurance system of the University consists of various policies, procedures and instructions/rules/guidelines according to which the activities of the university are conducted. The concept of quality assurance is based on three main policies and includes five main procedures.

- ATSU Quality Assurance Conception
- The Regulations of the Quality Assurance Service
- Policy, Procedures and Annexes

The activities of the quality assurance service are regulated by the regulation of the quality assurance service of Akaki Tsereteli State University and are based on the principle - "Plan, do, check, act".

The quality assurance service cooperates with various structural units of the university to ensure the effectiveness of internal quality assurance mechanisms and also for the purpose of program development and all interested parties were involved in this process.

For the development of the program, a self-evaluation group was created, which included the heads of the program. Academic staff, administration representatives, employers, students, graduates, faculty quality assurance staff.

The accreditation standards and qualifications framework requirements were explained to the group by the university's quality assurance service. The group planned the activities aimed at the development of the program and defined the persons working on a specific issue. Work on in dividual issues was done both individually and in groups.

Several meetings of the self-assessment group were held. The activities corresponding to the standards were discussed and analyzed at each of the meetings. The relevant recommendations were formulated. Self-evaluation report and accreditation packages were prepared. These documents were submitted to the quality assurance service of the university. Activities related to received feedback were carried out. As a result, the final version of the self-assessment was formed.

During the development of the program, the students and graduates the desires to increase the hours of practice and laboratory studies was taken into account. A course named "Research

project" was added to the program, which, along with other courses, is a prerequisite for the master's thesis.

The academic staff, students, alumni, and potential employers confirmed in interviews that they cooperated with the Quality Assurance Office in planning the program's quality assurance process, creating assessment instruments, and analyzing assessment results; Programme staff takes into consideration quality assurance results when making programme related decisions; They confirmed that they were involved in the process of developing the program, that their opinions were taken into account. The self-evaluation team, academic staff confirmed that during the development of the program, they were constantly consulted by the quality assurance service regarding the requirements of the standards. They were provided with information about the issues identified during the research, evaluation analysis, and they were taken into account during their activities.

#### **Evidences/Indicators**

 $\circ$   $% \ensuremath{\mathsf{C}}$  Component evidences/indicators, including the relevant documents and interview results

- o Policy of the Quality Assurance Service of ATSU
- o Minutes of the session of the branch department on approval and review of the program;
- o Internal evaluation of the program.
- o Results of the interviews

#### **Recommendations:**

• Proposal (s), which should be considered by the HEI, the programme to meet the requirements of the standard

### none

#### Suggestions for the programme development

• Non-binding suggestions for the programme development

### none

#### Evaluation

Please, evaluate the compliance of the programme with the component

| Component                             | Complies with requirements | Substantially<br>complies with<br>requirements | Partially<br>complies with<br>requirements | Does not<br>comply with<br>requirements |
|---------------------------------------|----------------------------|--|--|---|
| 5.1 Internal<br>quality<br>evaluation | Х                          |  |  |   |

#### 5.2 External Quality Evaluation

#### Programme utilises the results of external quality assurance on a regular basis.

# Summary and Analysis of the Education Programme's Compliance with the Requirements of the Component of the Standard

Describe, analyse and evaluate the compliance of the education programme with the requirements of the component of the standard, based on the information collected through the self-evaluation report (SER), the enclosed documents and site-visit.

The mechanisms of external assessment are authorization and accreditation, which is carried out by the National Center for Educational quality enhancement. On June 26, 2019, an accreditation application for the accreditation of the "Food Technology and Safety" master's educational program was submitted to the National Center for Education Quality Enhancement. On March 12, 2020, according to decision #2 of the Council of Accreditation of Educational Programs, the program was refused accreditation. The recommendations received during the evaluation have been taken into account for the development and implementation of the program.

University representatives confirm that the recommendations received during this ongoing external evaluation will be taken into account for the development of the program.

The program submitted for accreditation was also evaluated by an external expert. Evaluation of the program from the professor from the Department of Food Science and Technology of Kaunas University of Technology and Lund University's of Food Technology, Engineering and Nutraceuticals Department 's professor's external evaluation is provided by the university.

#### **Evidences/Indicators**

Component evidences/indicators, including the relevant documents and interview results

- Educational program;
- Annual self-evaluations of the program;
- External evaluations of the program
- Interview with Institution representatives

#### **Recommendations:**

Proposal (s), which should be considered by the HEI, the programme to meet the requirements of the standard
None

#### Suggestions for the programme development

• Non-binding suggestions for the programme development

#### None

#### **Evaluation**

Please, evaluate the compliance of the programme with the component

| Component                              | Complies with requirements | Substantially<br>complies with<br>requirements | Partially<br>complies with<br>requirements | Does not<br>comply with<br>requirements |
|--|----------------------------|--|--|---|
| 5.2. External<br>Quality<br>Evaluation | Х                          |  |  |   |

#### 5.3 **Programme Monitoring and Periodic Review**

Programme monitoring and periodic evaluation is conducted with the involvement of academic, scientific, invited, administrative, supporting staff, students, graduates, employers and other stakeholders through systematic data collection, study and analysis. Evaluation results are applied for the programme improvement.

# Summary and Analysis of the Education Programme's Compliance with the Requirements of the Component of the Standard

Describe, analyse and evaluate the compliance of the education programme with the requirements of the component of the standard, based on the information collected through the self-evaluation report (SER), the enclosed documents and site-visit.

The University quality assurance service monitors the implementation of the program and provides recommendations if necessary. The quality assurance service of the faculty is also involved in the process of monitoring and taking into account the recommendations.

The University's Quality Assurance Service monitors the implementation of the program, is involved in program development activities, and provides consulting as needed. The quality assurance service of the faculty is also involved in the process of program monitoring and implementation of recommendations. Compliance with external and internal quality assurance standards is also monitored.

During the interviews, academic staff, students confirmed that at the end of each semester, students are surveyed. The implementation of training courses is evaluated during this survey. The results are discussed with the dean and the survey results are taken into account. Academic and invited staff noted that peer review of the courses is used regularly and, if necessary, activities to improve the implementation of the training course are planned as a result of reviewing the results in cooperation with the quality assurance service and the dean. Academic and invited staff also take part in the surveys. Questionnaires are sent to a corporate email. Students also mentioned that they participate in surveys. They believe that their opinions are taken into account and feel supported by the university.

Employers also contribute to the evaluation of program implementation. A representative of the practice organization evaluates the students, employers evaluate the graduates and also provide feedback on what should be developed in the program.

Quality Assurance office in collaboration with study process department monitors the conduct/non-conduct of lectures in accordance with the study schedule; They also monitor and collaborate academic personnel with peer review process, Assessment of achievement of learning outcomes, Analysis of student academic performance, benchmarking, academic personnel evaluation and e.g.

At the beginning of the year, the academic staff makes a plan of what to do and at the end of the year presents a report on the work done. The report is reviewed at the faculty level and the results are communicated at the university level. Results are reviewed and decisions are made on internal grants. Academic staff also prepare annual reports for the Academy of Sciences.

To assess the achievement of the program's learning outcomes, the Quality Assurance Office evaluates a master's thesis that covers all of the program's outcomes. The thesis is also checked for plagiarism and integrity. The results of evaluation of the scientific research component are analyzed in field departments.

Most of the agreements presented in the accreditation package expire in September 2023. Part of them have already expired.

#### **Evidences/Indicators**

 Component evidences/indicators, including the relevant documents and interview results
Self Evaluation Report Interviews
Quality assurance documents

#### **Recommendations:**

• Proposal (s), which should be considered by the HEI, the programme to meet the requirements of the standard

The quality assurance office should regularly monitor the availability of program resources.

#### Suggestions for the programme development

• Non-binding suggestions for the programme development

#### Evaluation

Please, evaluate the compliance of the programme with the component

| Component  | Complies with requirements | Substantially<br>complies with<br>requirements | Partially<br>complies with<br>requirements | Does not<br>comply with<br>requirements |
|--|----------------------------|--|--|---|
| 5.3.<br>Programme<br>monitoring and<br>periodic review |                            | Х  |  |   |

### **Compliance with the programme standards**

|   | Complies with requirements               | Х |
|---|--|---|
| 5. <b>Teaching Quality</b><br>Enhancement Opportunities | Substantially complies with requirements |   |
| Linditement opportunities                               | Partially complies with requirements     |   |
|   | Does not comply with requirements        |   |

# Attached documentation (if applicable):

Name of the Higher Education Institution: Akaki Tsereteli State University

Name of Higher Education Programme: Food safety and Technology, Level: VII

| Evaluation<br>Standards   | Complies with requirements | Substantially<br>complies with<br>requirements | Partially complies<br>with<br>requirements | Does not comply<br>with<br>requirements |
|---|----------------------------|--|--|---|
| 1. Education Programme<br>Objectives, Learning Outc<br>omes<br>and their Compliance with<br>the Programme |                            | Х  |  |   |
| 2. Teaching Methodology<br>and Organisation,<br>Adequacy Evaluation of<br>Programme Mastering             | x                          |  |  |   |
| 3. Student Achievements,<br>Individual Work with them   | х                          |  |  |   |
| 4. Providing Teaching<br>Resources  | Х                          |  |  |   |
| 5. Teaching Quality<br>Enhancement<br>Opportunities   | х                          |  |  |   |

#### **Compliance with the Programme Standards**

# Signatures:

Dimitri Tsanava

<u>Chair of Accreditation Expert Panel</u> Dario Compagnone <u>Accreditation Expert Panel Members</u> Zhuzha Katchapuridze Elene Sordia Nino Jojua

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