



CENTRE FOR QUALITY ASSESSMENT IN HIGHER EDUCATION

---

## EVALUATION REPORT

### STUDY FIELD of MEDICAL TECHNOLOGY

at Kauno kolegija

#### Expert panel:

1. Prof. Dr. Dalia Giedrimienė (panel chairperson), *academic*;
2. Assoc. Prof. Dr. Peeter Ross, *academic*;
3. Prof. Dr. Julius Griškevičius, *academic*;
4. Dr. George Kolostoumpis, *academic*;
5. Ms. Giedrė Kvedaravičienė, *representative of social partners*;
6. Ms. Eivilė Šopagaitė, *students' representative*.

Evaluation coordinator – *Dr. Domantas Markevičius*

Report language – English

© Centre for Quality Assessment in Higher Education

## Study Field Data

Title of the study programme	<b>Biomedical Diagnostics</b>	<b>Radiology</b>
State code	6531GX042	6531GX044
Type of studies	College studies	College studies
Cycle of studies	First cycle	First cycle
Mode of study and duration (in years)	Full time (3 years)	Full time (3 years)
Credit volume	180	180
Qualification degree and (or) professional qualification	Professional Bachelor in Health Sciences, qualification of a biomedical technologist	Professional Bachelor in Health Sciences
Language of instruction	Lithuanian	Lithuanian
Minimum education required	Secondary education	Secondary education
Registration date of the study programme	29/08/2001	30/04/2013

# CONTENTS

<b>I. INTRODUCTION</b>	<b>4</b>
1.1. BACKGROUND OF THE EVALUATION PROCESS	4
1.2. EXPERT PANEL	4
1.3. GENERAL INFORMATION	5
1.4. BACKGROUND OF THE STUDY FIELD/STUDY FIELD POSITION/STATUS AND SIGNIFICANCE IN THE HEI	5
<b>II. GENERAL ASSESSMENT</b> .....	<b>6</b>
<b>III. STUDY FIELD ANALYSIS</b> .....	<b>7</b>
3.1. INTENDED AND ACHIEVED LEARNING OUTCOMES AND CURRICULUM	7
3.2. LINKS BETWEEN SCIENCE (ART) AND STUDIES	10
3.3. STUDENT ADMISSION AND SUPPORT	13
3.4. TEACHING AND LEARNING, STUDENT PERFORMANCE AND GRADUATE EMPLOYMENT	15
3.5. TEACHING STAFF	19
3.6. LEARNING FACILITIES AND RESOURCES	22
3.7. STUDY QUALITY MANAGEMENT AND PUBLIC INFORMATION	24
<b>IV. RECOMMENDATIONS</b> .....	<b>29</b>
<b>V. SUMMARY</b>	<b>31</b>

## I. INTRODUCTION

### 1.1. BACKGROUND OF THE EVALUATION PROCESS

The evaluation of study fields is based on the Methodology of External Evaluation of Study Fields approved by the Director of the Centre for Quality Assessment in Higher Education (hereafter – SKVC) 31 December 2019 Order [No. V-149](#).

The evaluation is intended to help higher education institutions to constantly improve their study process and to inform the public about the quality of studies.

The evaluation process consists of the main following stages: 1) *self-evaluation and self-evaluation report prepared by Higher Education Institution (hereafter – HEI)*; 2) *site visit of the expert panel to the higher education institution*; 3) *production of the external evaluation report (EER) by the expert panel and its publication*; 4) *follow-up activities*.

On the basis of this external evaluation report of the study field SKVC takes a decision to accredit study field either for 7 years or for 3 years. If the field evaluation is negative then the study field is not accredited.

The study field and cycle are **accredited for 7 years** if all evaluation areas are evaluated as exceptional (5 points), very good (4 points) or good (3 points).

The study field and cycle are **accredited for 3 years** if one of the evaluation areas was evaluated as satisfactory (2 points).

The study field and cycle are **not accredited** if at least one of evaluation areas was evaluated as unsatisfactory (1 point).

### 1.2. EXPERT PANEL

The expert panel was assigned according to the Experts Selection Procedure (hereinafter referred to as the Procedure) as approved by the Director of Centre for Quality Assessment in Higher Education on 31 December 2019 [Order No. V-149](#). The site visit to the HEI was conducted by the panel on *17 December, 2021*. Due to the coronavirus pandemic, the site visit was conducted online using video conferencing tools (Zoom).

**Prof. Dr. Dalia Giedrimienė (panel chairperson)**, *Professor of Biology and Pharmaceutical Sciences, School of Arts, Sciences, Business and Education, University of Saint Joseph (West Hartford), USA;*

**Assoc. Prof. Dr. Peeter Ross**, *Associate Professor at the Department of Health Technologies, School of Information Technologies, Tallinn University of Technology, Estonia;*

**Prof. dr. Julius Griškevičius**, *Head of Department of Biomechanical engineering at Vilnius Tech University, Lithuania;*

**Dr. George Kolostoumpis**, *Researcher at “Stelar Security Technology Law Research UG”, Hamburg, Germany;*

**Ms. Giedrė Kvedaravičienė**, *Innovation Development Manager at the Center for Innovative Medicine and a Co-Founder of “Biostartas” LTD, Lithuania;*

**Ms. Eivilė Šopagaitė**, *3rd year student of General Practice Nursing at Klaipėda State University of Applied Sciences, Lithuania.*

### 1.3. GENERAL INFORMATION

The documentation submitted by the HEI follows the outline recommended by SKVC. Along with the self-evaluation report and annexes, the following additional documents have been provided by the HEI before, during and after the site visit:

No.	Name of the document
1.	Examples of quality surveys conducted in 2020-2021 and their generalized results.
2.	Photos from practical classes
3.	Medical Technology Study Field Strategy 2022-2025 (Lithuanian only)

### 1.4. BACKGROUND OF THE STUDY FIELD/STUDY FIELD POSITION/STATUS AND SIGNIFICANCE IN THE HEI

Kauno kolegija (hereafter – KAUKO, also – the College) is a public higher education institution established in 2000 and accredited as a college of higher education. Today it is one of the largest higher education institutions in Lithuania providing a professional bachelor qualification degree.

Studies in KAUKO are implemented at 4 faculties (Faculty of Business, Faculty of Technologies, Faculty of Medicine, and Faculty of Arts and Education) and are to a significant degree based on interdisciplinary approach.

Medical Technology field studies are conducted at the Faculty of Medicine since 2001. Besides Medical Technology field study programmes (Biomedical Diagnostics and Radiology), Faculty of Medicine also organises studies in the study fields of Nutrition, Pharmacy, Nursing and Midwifery, Rehabilitation, Cosmetology, and Oral Care. Also, there are several programmes in the group of study fields of Social Sciences, like Social work.

Medical technology field study programmes Biomedical Diagnostics and Radiology are managed by the Department of Medical Technologies and Dietetics. According to the data of 10 May, 2021, there are 81 students enrolled in Radiology programme, and 84 in Biomedical Diagnostics.

The graduates of the studies programmes in Medical Technology are working in a variety of healthcare institutions, including hospitals, laboratories, biotechnology and pharmaceutical companies in both public and private sectors.

## II. GENERAL ASSESSMENT

*Medical Technology* study field and *first cycle* at Kaunas kolegija is given **positive** evaluation.

*Study field and cycle assessment in points by evaluation areas*

No.	Evaluation Area	Evaluation of an Area in points*
1.	Intended and achieved learning outcomes and curriculum	4
2.	Links between science (art) and studies	4
3.	Student admission and support	4
4.	Teaching and learning, student performance and graduate employment	4
5.	Teaching staff	4
6.	Learning facilities and resources	4
7.	Study quality management and public information	3
	<b>Total:</b>	<b>27</b>

\*1 (unsatisfactory) - the area does not meet the minimum requirements, there are fundamental shortcomings that prevent the implementation of the field studies.

2 (satisfactory) - the area meets the minimum requirements, and there are fundamental shortcomings that need to be eliminated.

3 (good) - the area is being developed systematically, without any fundamental shortcomings.

4 (very good) - the area is evaluated very well in the national context and internationally, without any shortcomings;

5 (excellent) - the area is evaluated exceptionally well in the national context and internationally.

### III. STUDY FIELD ANALYSIS

#### 3.1. INTENDED AND ACHIEVED LEARNING OUTCOMES AND CURRICULUM

*Study aims, outcomes and content shall be assessed in accordance with the following indicators:*

*3.1.1. Evaluation of the conformity of the aims and outcomes of the field and cycle study programmes to the needs of the society and/or the labour market*

*(1) Factual situation*

KAUKO provides two professional bachelor study programmes in the Medical Technology study field - Radiology and Biomedical Diagnostics.

The aims and learning outcomes are defined in terms of both the academic content and scientific and professional requirements for a professional bachelor in health sciences.

The aim of Biomedical Diagnostics study programme is to train a biomedical technologist to perform laboratory investigations, while the aim of Radiology study programme is to train a radiologic technologist to perform radiological procedures. According to the SER (p. 7), the number of radiological and laboratory diagnostic tests has increased over the last 8 years and therefore there is demand for such specialists in the market. Moreover, employers also expressed the constant need for such specialists during the site visit.

*(2) Expert judgement*

The aims and learning outcomes of the study programmes Radiology and Biomedical Diagnostics conforms to the needs of society and labour market, as radiology and biomedical diagnostics specialists are in high demand.

So far in the curriculum and description of study aims and outcomes, there is no module that would include the content related to public health and medical law, which would help the students to get the knowledge about legal responsibilities, more comprehension of public health concepts and, for example, the role of medical technologies in current healthcare system.

*3.1.2. Evaluation of the conformity of the field and cycle study programme aims and outcomes with the mission, objectives of activities and strategy of the HEI*

*(1) Factual situation*

The aim of the Radiology study programme is to train a radiologic technologist able to use the knowledge of medicine and health, natural sciences, social sciences, and medical technology to perform radiological procedures, assess the acceptability and quality of diagnostic images, solve practical-scientific problems, disseminate professional activities, cooperate in a multidisciplinary team, and continuously learn and improve in their professional field.

The aim of the Biomedical Diagnostics study programme is to train a biomedical technologist who is able to use the knowledge of medicine and health, natural sciences, social sciences, and medical technology to perform laboratory investigations, evaluate their results, reliability, and quality, solve practical-scientific problems, disseminate professional activities, cooperate in a multidisciplinary team, continuously learn, and improve in their professional field.

These aims and learning outcomes of study programmes are in line with the mission of KAUKO which emphasises the development of practice-oriented studies and the expansion of applied research activities that are important for the development of society.

*(2) Expert judgement*

In general, study field aim is perfectly in line with the vision and mission of KAUKO.

*3.1.3. Evaluation of the compliance of the field and cycle study programme with legal requirements*

*(1) Factual situation*

The volume of the Radiology study programme is 180 credits, while the scope of the full time study is 30 credits per semester (total 6 semesters). 135 credits are used to accomplish the study field aims. 41 credits are allocated for practical activities, 10 credits for final thesis of a professional bachelor. Practical training amounts for 43% of the scope of the study programme.

The volume of the Biomedical Diagnostics study programme is 180 credits, while the scope of the full time study is 30 credits per semester (total 6 semesters). 135 credits are used to accomplish the study field aims. 38 credits are allocated for practical activities, 10 credits for final thesis of a professional bachelor. Practical training amounts for 47% of the scope of the study program.

100% of the lecturers in both study programmes have more than 3 years practical experience in their subject field. 26% of teaching staff hold doctoral degrees.

*(2) Expert judgement*

Medical Technology field study programmes (Radiology and Biomedical Diagnostics) are in compliance with the legal requirements.

*3.1.4. Evaluation of compatibility of aims, learning outcomes, teaching/learning and assessment methods of the field and cycle study programmes*

*(1) Factual situation*

Learning outcomes of Biomedical Diagnostics and Radiology study programmes are expressed in five categories following the Descriptor of Medical Technology study field, i.e. Knowledge and its application, Research abilities, Special skills, Social skills and Personal skills. Both programmes have defined 13 learning outcomes assigned to different competence categories. The learning outcomes are in line with the aims of the study field.

However, SER does not provide a more detailed mapping of the links between learning outcomes, teaching/learning and assessment methods, providing just formal description (SER, p. 11). Based on the description, there is a balanced mixture of teaching and learning methods that are used to deliver the courses which are appropriate for achieving the desired learning outcomes such as lectures, practice, laboratory work and projects (applied and research oriented). Assessment is also based on a mixture of coursework, presentations and examinations which is appropriate.

*(2) Expert judgement*



The teaching/learning and assessment methods are compatible with the aims and learning outcomes of the field (Medical Technology) and cycle (professional bachelor) of the study programmes.

However, the description of learning outcomes could be refined by expressing them in terms of what the students are able to do after graduation, i.e. avoiding formulations like “understands”, “comprehends”, etc. The list of learning outcomes could also be shortened, as some repetition is present. For example, 2nd and 3rd anticipated learning outcomes in the Radiology study programme Knowledge and its application competence group (“2. Knows the technologies used for radiological procedures, the principles of operations and use of equipment <...>” and “3. Understands the essence and principles of radiological procedures <...>”) in general have the same meaning.

### *3.1.5. Evaluation of the totality of the field and cycle study programme subjects/modules, which ensures consistent development of competences of students*

#### *(1) Factual situation*

Both in the Radiology and Biomedical Diagnostics study programmes, the order of the study subjects is logical, starting with the fundamentals of human body (anatomy and physiology), general science subjects, professional ethics, medical physics (for Radiology programme) and similar. First year of studies provides necessary knowledge for the student to develop basic knowledge and cognitive skills. In the second and third year of studies, students are provided with courses intended to develop special skills needed for the profession.

#### *(2) Expert judgement*

The totality and sequence of the study subjects, including the internship and final thesis, enable the student to develop the competences required of a graduate of professional bachelor in the Medical Technology field.

### *3.1.6. Evaluation of opportunities for students to personalise the structure of field study programmes according to their personal learning objectives and intended learning outcomes*

#### *(1) Factual situation*

In both study programmes, students have the opportunities to personalise the structure of their programme by freely selecting one course up to 3 credits in third, fourth and fifth semesters (total 9 credits for freely elective courses in the study programme).

Other opportunities for personalisation are: students’ partial studies in a foreign higher education institution, studying under individual plan for students with special needs, free study schedule is possible for students with a child or maternity leave and other circumstances (SER, p. 14), depending on a justified reason the assessment of the course may be extended, various voluntary and professional internships are available upon the choice of the student.

#### *(2) Expert judgement*

Study programmes provide different possibilities to individualise studies for the students. The opportunity for personalization of study programmes by free choice of three subjects, 3 credits per each subject, total 9 credits, is a good example.

### *3.1.7. Evaluation of compliance of final theses with the field and cycle requirements*

#### *(1) Factual situation*

The principles of preparation of final theses, formation of a commission, and defence procedure are described in the Methodological Guidelines for Developing Professional Bachelor Thesis in the Faculty of Medicine. According to the list of final projects presented, the topics presented for the study programmes in the Medical Technology field are all for the area of Radiology and Biomedical Diagnostics.

#### *(2) Expert judgement*

Final works of both study programmes Radiology and Biomedical Diagnostics are relevant topics in the Medical Technology field, are closely linked to practical work, and comply with the requirements of professional bachelor degree.

### ***Strengths and weaknesses of this evaluation area:***

#### ***(1) Strengths:***

1. Study programmes conform with the needs of society and the labour market, professions acquired are standardised by the national documents, and close links to professional societies and social partners allow keeping the study programmes up-to-date and actual.
2. Both study programmes provide students with different possibilities to individualise their studies. Having allocated up to 9 credits for freely chosen courses is an example of good practice providing broader education not limited to the professional bachelor and ensuring life-long learning.

#### ***(2) Weaknesses:***

1. Description of learning outcomes could be refined by expressing them in terms of what the students are able to do after graduation, i.e. avoiding formulations like “understands”, “comprehends”, etc.
2. The list of learning outcomes could also be shortened, as some repetition is present. For example, 2nd and 3rd anticipated learning outcomes in the Radiology study programme Knowledge and its application competence group (“2. Knows the technologies used for radiological procedures, the principles of operations and use of equipment <...>” and “3. Understands the essence and principles of radiological procedures <...>”) in general have the same meaning.

## **3.2. LINKS BETWEEN SCIENCE (ART) AND STUDIES**

***Links between science (art) and study activities shall be assessed in accordance with the following indicators:***

### *3.2.1. Evaluation of the sufficiency of the science (applied science, art) activities implemented by the HEI for the field of research (art) related to the field of study*

#### *(1) Factual situation*

As stated in the SER (pp. 15-16), the policy of studies and applied research in the College focuses on the practical applicability of the learning outcomes, interdisciplinarity, integration, and internationality. The action plan of the College's applied research/art activity programme defines quantitative and qualitative indicators according to the directions of the research performed. The applied research carried out by the academic staff of the field of Medical Technology is based on practical applicability and the integration of science and studies.

During 2018-2020, 112 research papers written by the academic staff of the field of Medical Technology were published, including 1 scientific study; 2 study books used in the study field; 7 teaching and methodological aids; 7 articles in scientific periodicals with citation rates; 38 articles in scientific periodicals stored in databases; 16 articles in other peer-reviewed publications; 41 abstracts in peer-reviewed conference proceedings. However, there is little research with foreign partners and only a few articles with foreign researchers, so there is a need to strengthen the international aspect of applied research activities.

KAUKO organises various events for the dissemination of applied research results.

The plan envisages that the academic staff of the field of Medical Technology will continue to carry out research with the aim to improve public health, health promotion and quality of life.

### *(2) Expert judgement*

The level of applied scientific activities in the area of research related to the field of study of Medical Technology is very good. As stated in the SER (p. 18) and confirmed during the site-visit, the research is based on practical applicability and the integration of science and studies. The contracted research demonstrates social partnership and shows the high professional skills and motivation of the academic staff to provide educational services focused on the needs of society and the market. However, it is vital to find more opportunities for contracted research with financial remuneration, conduct more research and produce more joint publications with foreign partners. The content of the studies of SPFMT reflects the latest developments in science and technology, and students have excellent opportunities and conditions for applied research and its dissemination.

## *3.2.2. Evaluation of the link between the content of studies and the latest developments in science, art and technology*

### *(1) Factual situation*

The main directions of the conducted research are linked with improving the quality and practical applicability of the studies in the field of Medical Technology, which is substantiated by the aim of contributing to the improvement of the quality of the professional activities of laboratory specialists and radiology technicians, solving public health issues, and promoting health literacy.

Teachers are motivated to do research, including financial motivation. The research work is included in their non-classroom hours.

During practical and theoretical classes, the students of Medical Technology study the latest research-based theories. They also individually analyze the latest scientific information in databases and apply it to solve professional problems. The academic staff teaching in the study field actively participate in various professional associations, expert working groups, and constantly integrate the newest scientific knowledge and trends into the curriculum.

## *(2) Expert judgement*

The studies are well in line with the latest developments in science and technology. As a possible development to further improve the programs, a more in-depth investigation of the benefits of ICT innovation and applied research would be recommended, in particular by highlighting the benefits of artificial intelligence and data science.

### *3.2.3. Evaluation of conditions for students to get involved in scientific (applied science, art) activities consistent with their study cycle*

#### *(1) Factual situation*

Students are provided with various opportunities to get involved in applied research, reinforce research skills, and improve relations with the scientific world.

Students are given the opportunity to participate and present the results of their research at events organized by Lithuanian and international institutions, and get involved in project activities, contracted research, and investigations. The applied research activities of the students of the Medical Technology study field are illustrated by the contracted final theses developed by the students. The involvement of students in scientific activities is also reflected in the presentations of students' scientific conferences.

Interviews with students and lecturers during the virtual site visit revealed that the College has invested a lot into the teaching materials and is working closely with the Ministry of Health, social partners and hospitals to make up to date technologies accessible to students and to implement virtual reality. Also, the administration confirmed that research will be an important part of the study programmes.

In the plans for applied research activities in the study field of Medical Technology, funds have been planned for the purchase of materials and tools necessary to conduct research; for the remuneration of the costs of publishing scientific articles in journals (e.g., the Faculty of Medicine annually allocates funds for the publications of the academic staff in the specialized journal "Health Sciences"); the costs of visits to stakeholders; the costs of travelling to conferences (travel costs, participation fee, etc.), and the costs of other expenses related to applied research activities. Time for research and preparing publications is planned in the activity plans of the academic staff. Publications are assessed according to the values of the classification of the types of scientific publications.

#### *(2) Expert judgement*

The content of the studies in the field of Medical Technology reflects the latest developments in science and technology, and students have excellent opportunities and conditions for applied research and its dissemination.

### ***Strengths and weaknesses of this evaluation area:***

#### ***(1) Strengths:***

1. The content of the studies is very well in line with the latest scientific and technical developments of Medical Technology.
2. Students are involved in the applied research.

3. Faculty members are participating actively in the research and are involved in the international research community.

***(2) Weaknesses:***

1. The programmes could benefit from more extensive investigation of the benefits of innovation and applied research in the field of information and communication technology, in particular by highlighting the benefits of artificial intelligence and data science.

### **3.3. STUDENT ADMISSION AND SUPPORT**

***Student admission and support shall be evaluated according to the following indicators:***

***3.3.1. Evaluation of the suitability and publicity of student selection and admission criteria and process***

***(1) Factual situation***

Admission to the study programmes is carried out during the general admission in accordance with the terms and conditions of admission of students to college studies, in accordance with the principles and the rules of admission of students to Kaunas College. Admission of students is carried out through a competition based on the entrance competition score. Information on the admission procedure, calculation of the competitive score, acceptance of documents, study programs is provided on the website of KAUKO, LAMA BPO (Association of Lithuanian Higher Schools for General Admission) and also in various publications, presented at study fairs, school visits and other events.

***(2) Expert judgement***

There is good publicity of study programmes of the Medical Technology field. Admission to the field of study is based on public and transparent documents. The number of students signing study contracts seems to remain stable.

***3.3.2. Evaluation of the procedure of recognition of foreign qualifications, partial studies and prior non-formal and informal learning and its application***

***(1) Factual situation***

Students can apply for credits for qualifications obtained abroad, part-time studies and previous non-formal and informal learning. The decision on the crediting of learning outcomes is made by the evaluation commission formed by the order of the director of Kaunas College. No more than 75 percent of the previously completed study programme volume can be credited.

***(2) Expert judgement***

Procedures to ensure that qualifications obtained abroad, part-time studies and previous non-formal and informal learning are credited are in place and appear to be appropriate. The use of student crediting for their prior study results indicates that information about this process is available to students.

### *3.3.3. Evaluation of conditions for ensuring academic mobility of students*

#### *(1) Factual situation*

All students of Kaunas College have the opportunity to go for part-time studies or professional internships, graduate internships immediately after studies under Erasmus+, Nordplus programs and bilateral cooperation agreements. From the autumn of 2020, KAUKO provides additional funding to increase Erasmus/Nordplus scholarships. Information about mobility opportunities is disseminated through various channels by including social networks, intranet, events and more.

#### *(2) Expert judgement*

Students are given sufficient publicity about mobility opportunities and good opportunities to participate in the mobility programs. Group meetings with the international coordinator take place every semester, giving students more information about opportunities to participate in student exchange projects, international relations.

### *3.3.4. Assessment of the suitability, adequacy and effectiveness of the academic, financial, social, psychological and personal support provided to the students of the field*

#### *(1) Factual situation*

Students receive a wide range of support in the following forms: counselling, information, group tutoring, social scholarships, loans, international mobility, library and information resource services, career counselling services, accommodation services, cultural and leisure services, psychological help. Students can participate in sports tournaments and be selected to national teams, students can also join the folk dance ensemble "Kaukas", a singing studio or a theatre studio. Students who are unable to attend lectures consistently due to illness or other personal reasons are given the opportunity to attend lectures on a free schedule, to study individually, to take a study break or academic leave, and to advance or postpone an examination session. Elders and student tutors are present and help students on different study issues in case of a need.

#### *(2) Expert judgement*

The academic, financial, social, psychological and personal support provided to students is very well organised. Educational cultural trips organised for the elders of the academic groups of the Faculty of Medicine not only encourage cooperation with the administration but also allow the elders of different/or the same groups to get to know each other better and maintain a good connection with the academic community.

### *3.3.5 Evaluation of the sufficiency of study information and student counselling*

#### *(1) Factual situation*

During the introductory week, first-year students are introduced to the legal documents governing the study process. The information about the studies is provided on the College's website as well as on a bulletin board. Two of the curators, who are a lecturer and a senior student, are assigned to the academic group, and student memos are handed out.

#### *(2) Expert judgement*

Students receive enough study-related information and have opportunities to take the advantage of consultations and get answers to necessary questions. In addition to that,



students are provided with sufficient information about options for non-academic activities at the College, indicating sufficient attention given to a balanced lifestyle of students.

***Strengths and weaknesses of this evaluation area:***

***(1) Strengths:***

1. A variety of available psychological, social, financial and academic support is accessible for students.
2. Competitive scores of entrants show that Kaunas College attracts motivated students .

***(2) Weaknesses:***

1. As the number of students signing study contracts remains stable, the growth of the study programmes by attracting and admitting more students is encouraged.

### **3.4. TEACHING AND LEARNING, STUDENT PERFORMANCE AND GRADUATE EMPLOYMENT**

***Studying, student performance and graduate employment shall be evaluated according to the following indicators:***

*3.4.1. Evaluation of the teaching and learning process that enables to take into account the needs of the students and enable them to achieve the intended learning outcomes*

***(1) Factual situation***

Studies in the field of Medical Technology are carried out in the mode of full-time studies. Various methods of teaching and studying are used, which help convey knowledge and develop practical skills required in the professional field.

To achieve the anticipated learning outcomes multiple study methods are used: traditional and interactive lectures, lectures by guest speakers (practitioners), study trips, seminars, laboratory tasks, information search and summarisation, case studies, problem analysis and solving, work on simulation models, individual and group projects, discussions, presentation of reports, virtualisation of the studies, with a part of the studies being carried out remotely.

Based on the SER p. 28, the assessment procedures are based on multiple criteria to assess the level of knowledge, abilities and practical skills. including oral and written examination, problem-solving analysis, presentations reports of individual/team work and also Final thesis. Much attention is given to practical training and self-study. Professional internships are presented as separate course units, and the placement includes healthcare institutions, such as hospitals, radiotherapy centres, biotechnology, pharmaceutical companies, etc. An individual study plan can also be designed and students may also be provided with a free study schedule (SER, p. 29).

***(2) Expert judgement***

The teaching and learning process takes into account the needs of the students and enables them to achieve the intended learning outcomes.

The attention is given to individualised study plans and assessment of obtained knowledge and practical skills.

However, both study programmes should enhance broader comprehension of public health concepts and the role of medical technologies to sustain up to date preparedness of the graduates for advancements in clinical practice.

Also, students' introduction to digital health technologies in their fields of specialisation would enhance their future capacities to work in highly multidisciplinary environments and teams, both in clinical practice and academic research projects.

### *3.4.2. Evaluation of conditions ensuring access to study for socially vulnerable groups and students with special needs*

#### *(1) Factual situation*

According to the information given in the SER (pp. 28-29), students belonging to socially vulnerable groups and those with special needs can study according to an individual/free study timetable of lectures and practical training, consultations and the accountings set. Various tuition fee reductions and social grants are offered to socially vulnerable groups. Additional financial support is provided to disadvantaged students, which is available through travelling to foreign partner higher education institutions under exchange programmes. The KAUKO Library has special workstations for hearing and visually impaired students. There are also lecture rooms that have tools for distance teaching and provide an opportunity to have classes on site or virtually.

The academic staff of the SPFMT has also participated in the training on how to work with persons with special needs organised by the KAUKO.

#### *(2) Expert judgement*

There were no students with special needs in the study field of Medical Technology under the evaluation period. However, the College has taken actions to be able to accommodate students with special needs and ensure access to study for socially vulnerable groups.

### *3.4.3. Evaluation of the systematic nature of the monitoring of student study progress and feedback to students to promote self-assessment and subsequent planning of study progress*

#### *(1) Factual situation*

According to the information of the SER (p. 29), all students of the medical technology study field can receive feedback about the results of the completed assessment in their courses. The evaluation scores are posted by the lecturer into the KAUKO Study Management System, which allows one to see the progress in the learning/study process. After the final evaluation, students have an opportunity to express their opinion on the course content, quality of teaching, and the assessment system.

The feedback from the lecturer regarding the student's individual performance helps to set up the subsequent plan of study. It includes the option that students can get extended time for completion of assessment or to use an adjusted schedule based on approval after timely submission to the Dean's Office (SER, p. 29).

#### *(2) Expert judgement*



At the level of the study programmes of the field, the progress of students is well monitored by the Study Field Committee. The usage of KAUKO Study Management System allows to record the progress in learning/study process and to identify the need for subsequent planning, self-assessment and improvement of study progress monitoring.

#### *3.4.4. Evaluation of employability of graduates and graduate career tracking in the study field*

##### *(1) Factual situation*

As it has been stated in the SER (p. 30), the employment of graduates is analysed every year in order to assess the need for trained specialists and the demand for the study programmes of the medical technology field.

The information about the employment of graduates and their careers is collected using surveys and also by including information received from the Lithuanian Employment Services based on graduates' registration and analyses. Also, KAUKO regularly receives data from the Government Strategic Analysis Centre (STRATA) on their graduates' employment (according to the qualification level) acquired 12 months after graduation.

In order to obtain more subjective data, the graduates are surveyed following the Procedure for managing feedback from KAUKO stakeholders. Six months after graduation, the Department surveys graduates seeking to learn more about their employment. One year after graduation, the Quality Management Division conducts an institutional survey of all KAUKO graduates on their readiness for professional activities and integration into the labour market. The data collected are discussed by the Study Field Committee and used for the improvement of the study programmes. In addition, the information on the knowledge and skills acquired by the graduates is also received from the stakeholders.

##### *(2) Expert judgement*

During the site visit, graduates have noted that the practical skills and knowledge acquired during their studies are sufficient for finding a job.

In the study process there is a lot of attention given to development of practical skills and competencies as practical training constitutes more than 50% of the programme.

The graduates of both programmes are successfully employed at multiple health care institutions and laboratories and their success and progress is monitored by the College.

#### *3.4.5. Evaluation of the implementation of policies to ensure academic integrity, tolerance and non-discrimination*

##### *(1) Factual situation*

Based on information given in the SER (p. 30-31) and virtual meeting with staff and students, KAUKO follows the principles of transparency of the study and research processes, academic integrity, equality, non-discrimination, justice, intellectual property protection, and other universally recognized principles. Each member of the College community undertakes to comply with Code of Academic Ethics and not tolerate its violations.

Academic integrity policy prohibits plagiarism, cheating, falsification of data, forgery of study papers or performing other tasks.

##### *(2) Expert judgement*

The measures on tolerance and non-discrimination are included into the policies of the College, and there is a Council established to respond to any report of violation. Also, a confidential site is available to report the incidence. As it has been confirmed during the virtual site visit, no incidence of violation of academic integrity, tolerance or non-discrimination has been reported during the period of evaluation.

#### *3.4.6. Evaluation of the effectiveness of the application of procedures for the submission and examination of appeals and complaints regarding the study process within the field studies*

##### *(1) Factual situation*

The process and the procedure for handling appeals is established and described as “*The Procedure for assessing learning achievements at KUAS*” (SER, p. 31). Within 3 working days from the course results announcement, the students can appeal to the Dean of the Faculty regarding the non-compliance of the assessment. The appeal should be made in written form and state the grounds and reasons for the disagreement with the final evaluation. The examination should be done by an Appeal Committee of 5 persons formed by the Dean of the Faculty within 15 working days from its registration.

The following decisions, such as to reject the appeal, satisfy the appeal or verify another final evaluation, can be made.

For procedural violations of the defence of final theses, students may submit appeals to the College Director within 24 hours. Within 2 working days, the decision should be made on the reasonableness of the request.

##### *(2) Expert judgement*

As it has been clarified during the site visit, no appeals or complaints regarding the study process and examination or final thesis defence procedures were submitted by the students of the field of Medical Technology during the last 3 academic years.

#### ***Strengths and weaknesses of this evaluation area:***

##### ***(1) Strengths:***

1. Applied study, evaluation and assessment methods encourage students to study effectively and to obtain necessary practical skills and competencies.
2. There is a consistent and efficient system for assessing students’ learning progress and achievements.
3. High graduates’ employability rates shows a successful preparation of graduates for their future employment.

##### ***(2) Weaknesses:***

1. Both study programmes should enhance broader comprehension of public health concepts and the role of medical technologies to sustain up to date preparedness of the graduates for advancements in clinical practice.
2. Students’ introduction to digital health technologies in their fields of specialisation would enhance their future capacities to work in highly multidisciplinary environments and teams, both in clinical practice and academic research projects.

### 3.5. TEACHING STAFF

*Study field teaching staff shall be evaluated in accordance with the following indicators:*

*3.5.1. Evaluation of the adequacy of the number, qualification and competence (scientific, didactic, professional) of teaching staff within a field study programme(s) at the HEI in order to achieve the learning outcomes*

*(1) Factual situation*

Based on information provided in SER, the academic staff consists of 43 persons. The ratio of lecturers to students is 1 : 3.7-4.0 and depends on the learning outcomes of the course and the form of organising classes. Theoretical classes are taught to groups of 30 students. During practical activities, when general and professional skills and abilities are developed, students are divided into subgroups, not more than 15 students each. Regarding the thesis work, each supervisor has to instruct 3-4 students. The supervisors of the final theses are qualified specialists – lecturers and/or social partners with practical experience in the study field.

The academic staff has either a master's or doctoral degree (11 Doctors of Science). 36 work in the position of a lecturer, 6 in the position of associate professor, and 1 is an assistant. 26 members of the academic staff teach the courses of the study field. They work on the basis of at least 0.5 full-time equivalent (FTE) and at least for 3 years. The transfer of lecturers' practical experience to the study process ensures the coherence of the theory and practice of the studies in the field, as well as science and studies.

Approximately 50% of the staff have 5-years contracts. Others are working mostly on the 1-year contract, because most of the lecturers are practitioners and they also have other assignments in professional fields. The staff of the Medical Technology field is renewed every year. Basic criteria for the lecturer's applicant is 3 years work or pedagogical experience. Also, knowledge of foreign languages is required (mostly English, but not only). Last year nobody left their jobs. About 50% of each study programme is planned for practical skills learning or internships.

The renewal and supplementation of the academic staff of the Faculty with new qualified and motivated specialists are ensured by competition. Newly recruited academic staff must take part in introductory training (during the first two months), where they acquire the knowledge and skills necessary to perform the functions specified in the job description. Those lacking pedagogical expertise and experience are provided with an opportunity for in-service training in education. Experienced educators are appointed for professional and pedagogical counselling on organising the study process, etc. The new staff is consulted by the head of the department and the administration. 40-hours adaptation programme "Planning and organising teaching in KUAS" ensures the adaptation of newly recruited academic staff. The composition of the academic staff complies with the requirements established in the *Description of the Study Field of Medical Technology* and other relevant regulations.

The academic staff participates in the activities of various professional associations, societies, committees and expert working groups in Lithuania and internationally. The qualification of the academic staff is appropriate for achieving the anticipated learning outcomes. The indicators of human resources show that the qualification of the staff meets the requirements

for the implementation of studies in the field of Medical Technology and is suitable for achieving the strategic goals of the Faculty.

During the period under assessment, the academic staff of the study field of Medical Technology actively participated in mobility programs and other mobility activities (internships, conferences, seminars). The number of outgoing lecturers was 21 in 2017; 11 in 2018; 23 in 2019; 7 in 2020 (1 went abroad for training, 2 participated in virtual international training and 4 had virtual international teaching classes), and 9 in 2021 (6 in virtual training, 3 made presentations in online conferences). Visiting partners from other countries share their professional experience and training skills. In 2017, there were 3 visits, 4 in 2018, 8 in 2019, and 1 in 2020.

#### *(2) Expert judgement*

The number of academic staff is sufficient, and their qualification is appropriate for achieving the anticipated outcomes of the study programmes in the field of Medical Technology. The qualification of the teaching staff is ensured through targeted processes of recruitment, planning staff in-service and international training and monitoring their annual planning and performance.

### *3.5.2. Evaluation of conditions for ensuring teaching staffs' academic mobility*

#### *(1) Factual situation*

The main sources to finance international exchange for the lecturers of the field of Medical Technology are funds under Erasmus+ and Nordplus exchange programs. The candidates for the mobility are selected transparently following the general requirements established in the *Description of the procedure for organising mobility of KUAS staff under international exchange programmes*. The selection of the academic staff to participate in mobility programs is announced at least four times a year and is conducted by the Staff Selection Committee. The selection criteria (the relevance of the visit to the HEI, the Department and (or) study field represented; the purposefulness of the stay for the professional activities of the lecturer and (or) another employee) are clear and publicly available. If a staff member disagrees with the result of the selection for participation in a mobility program and the decision made against him/her, s/he has the right to appeal. Participation in mobility activities is acknowledged during the certification of the academic staff. Participation in mobility programs is considered an integral part of work, and the staff can include their visits in their annual plans of non-teaching hours.

Due to the global pandemic situation, with limited possibilities to organize the physical mobility of employees, staff have the opportunity to participate in international exchange programs virtually.

During the evaluation period, new inter-institutional cooperation agreements have been signed with Tartu Health Care College (Estonia), Savonia University of Applied Sciences (Finland), XAMK University of Applied Sciences (Finland), Polytechnic Institute of Guarda (Portugal), University of Latvia Riga First Medical College (Latvia), HAN UAS (the Netherlands), P. Stradins Medical College of the University of Latvia (Latvia). There have also been newly signed Erasmus+ Interinstitutional Cooperation Agreements with University of

South Bohemia in České Budejovice (Czech Republic), Polytechnic Institute of Coimbra (Portugal), Bezmialem Vakif University (Turkey).

*(2) Expert judgement*

The conditions for academic mobility of the teaching staff are well established and transparent. Participation in mobility programs is considered an integral part of work and is supported by administration.

*3.5.3. Evaluation of the conditions to improve the competences of the teaching staff*

*(1) Factual situation*

The lecturers of the field of Medical Technology are mostly practitioners. The improvement of their professional qualification is a continuous and systematic process. The College provides teaching staff with the training and education to improve didactic, research, professional and general (digital, leadership, intercultural) competencies which in turn helps to revise the study course content and apply innovative teaching methods. Professional development of teachers is planned at the beginning of each academic year. Various seminars, courses for teachers are delivered and offered. On the institutional level, seminars to develop didactic competences, seminars for improving skills of evaluating students' achievements, and similar were conducted in 2021, and a lot of teachers participated.

The College has created favorable conditions for in-service training, which is planned and purposefully financed by the European Social Fund project, Erasmus, and other national and international programs. The in-service training of the academic and administrative staff is a planned activity. The performance of the employees is assessed via annual self-assessment reports of the academic staff and the procedure for evaluating the performance of other KAUKO employees. Specific directions for improvement are planned after analysis with the direct manager. The staff is encouraged to participate in in-service events organized by the College.

The academic staff is also provided with opportunities to improve general competencies, English in particular, and computer literacy. Lecturers are provided with the opportunity to enhance their qualifications in Lithuania and abroad.

The competition for teaching positions allows renewing and supplementing the academic staff of the faculty with new qualified and motivated specialists.

*(2) Expert judgement*

The academic staff is provided with lots of opportunities to improve their professional and general competencies.

***Strengths and weaknesses of this evaluation area:***

***(1) Strengths:***

1. Academic staff are motivated to conduct applied research.
2. An adequate number of lecturers-practitioners ensures the integration of professional experience into the study process and the compliance of studies to market needs.
3. Wide opportunities for in-service training of the academic staff.

***(2) Weaknesses:***

1. Strengthening the competencies of creating digital content, using various forms of e-studies, and the need for improving language skills. Teaching staff would benefit from the lecturers addressing recent developments of healthcare management and in the field of information and communication technology.

### 3.6. LEARNING FACILITIES AND RESOURCES

*Study field learning facilities and resources should be evaluated according to the following criteria:*

*3.6.1. Evaluation of the suitability and adequacy of the physical, informational and financial resources of the field studies to ensure an effective learning process*

*(1) Factual situation*

Based on information given in the SER (p. 39), the Medical Technology field study programmes are using multiple teaching sites and a variety of teaching and learning facilities, including: 1) Campus of the Faculty of Medicine at K. Petrausko Str. 15, 2) Campus at Muitinès Str. 15, 3) Campus at Puodžių Str. 11; and 4) some premises of KAUKO at Pramonės Ave. 20 and 22.

For practice purposes there are facilities offered by the stakeholder, such as Radiology Clinic of Kaunas Clinics of Lithuanian University of Health Sciences (hereafter - Kaunas Clinics), with access to a computer room with 24 workstations.

The delivery of lectures is provided in 11 classrooms of various sizes and practical training is implemented in 10 specialised rooms and 6 laboratories. The number of workplaces corresponds to the number of students in a group or a subgroup.

Students of the Radiology study programme can use modern radiologic diagnostic and therapeutic equipment at the Radiology Clinic of Kaunas Clinics.

For pre-clinical practical training students are studying in the simulation rooms and laboratories of the Faculty of Medicine. After classes, for self-study, students can use computers and printers in the KAUKO computer classrooms and the College's library. In dormitories, students have access to the Internet in the rooms (using personal computers).

All facilities used for studies (classrooms, laboratories) comply with hygiene and occupational safety requirements and are monitored by the staff (SER, p. 39).

The College's library (Library and Information Resource Centre) provides professional information services and access to the information resources needed for studies and applied research and offers a modern learning space for students.

Medical Technology field programmes are equipped with computer software, video projectors, printers and other video/audio equipment. In computer rooms, students can use PCs that have Microsoft Windows XP Professional, Microsoft Office 2003 Professional, SPSS and other software installed. Distance learning is accomplished by using the Moodle tools BigBlueButton, Google Hangout Meet, Adobe Connect or the Youtube channel. For lecturers it improves interactions with students and also allows them to demonstrate the laboratory tests using video transmission equipment.



All course materials are available digitally and teaching is performed in the Moodle e-learning environment. According to the information given in the SER (pp. 41-42), the methodological publications used in the study process are appropriate, accessible, and regularly updated. 10 methodological aids have been published during the assessment period. The teaching and learning materials are adapted to modern teaching and learning methods. Lecture notes are prepared by the academic staff and all methodological materials, tasks for self-study, descriptions of practical activities are available in the virtual environment of Moodle.

*(2) Expert judgement*

Both study programmes are using multiple teaching sites and a variety of teaching and learning facilities. Students can use modern radiologic diagnostic and therapeutic equipment. Overall, the suitability and adequacy of the physical, informational and financial resources of the field studies is sufficient to ensure an effective learning process.

*3.6.2. Evaluation of the planning and upgrading of resources needed to carry out the field studies*

*(1) Factual situation*

New apparatus and equipment are purchased every year by the Department of Medical Technologies and Dietetics, and new technologies are integrated into the study process. Just recently, modern equipment and devices were purchased for €26,666.53, and €129,875 was used from project funds. An average of €12,800 are allocated per academic year to buy materials and tools for practical tasks.

*(2) Expert judgement*

There are necessary funds in place to upgrade the teaching process. Purchases of IT equipment are made annually according to the needs of study programmes. There are plans for a new campus for medical studies which would be beneficial to expand the admission of students into both study programs. Overall, the planning and upgrading of resources indicates good management of both study programmes and is sufficient to cover needs and requirements of the study process.

***Strengths and weaknesses of this evaluation area:***

***(1) Strengths:***

1. Both study programs have all necessary facilities for the studies and access to practical sites for students to obtain practical skills and develop their competencies.
2. All used facilities comply with hygiene and occupational safety requirements.
3. New equipment and study program related tools/technologies are regularly purchased or updated and necessary funding is in place.

***(2) Weaknesses:***

1. As both study programs are using multiple teaching sites and a variety of teaching and learning facilities, the planning and building of a new campus for medical studies would help to overcome physical limitations due to difficulties related to the access and transportation and this would allow to expand the program in terms of higher admission of students.

### 3.7. STUDY QUALITY MANAGEMENT AND PUBLIC INFORMATION

*Study quality management and publicity shall be evaluated according to the following indicators:*

#### *3.7.1. Evaluation of the effectiveness of the internal quality assurance system of the studies*

##### *(1) Factual situation*

As it is stated in the SER (p. 49), the internal quality assurance system is developed at the College and is presented in the KAUKO Quality Manual. In general, it is based on the quality assurance policy and the College's Strategy. Multiple documents and policies that regulate the implementation and monitoring of the studies of the field are stored in the electronic document management system "Kontora" and Documentation Catalogue <https://dok.kauko.lt/>.

The management of the studies and decision-making is performed at several levels: institutional (preparation of documents regulating studies), Faculty, and the Department.

The renewal and improvement of the field study programmes are carried out following the *Description of the procedure for the assessment and improvement of the quality of ongoing study programmes* approved by the KAUKO Academic Council.

In addition, the functions of the Committee of the Study Field of Medical Technology include analysing the quality indicators of the study field (the number of the students enrolled in the study programmes of the field, the rates of graduation and employment of graduates, the results of internationalization, etc.); analysing the opinions of various stakeholders, developing plans for improvement and renewal of the studies in the field; providing recommendations and suggestions for improving, discussing essential amendments in the study programmes and submitting them to the Academic Council for approval (SER, p. 49).

The strategic provisions for the improvement of the quality of the College's performance are based on the multiple provisions and policies, such as Quality Assurance in the European Higher Education Area, the Law on Higher Education and Research of the Republic of Lithuania, the KAUKO Statute, the KAUKO Policy of Study and Applied Science and Art Activities and the KAUKO Policy of Human Resources.

Based on information provided in SER (p. 49), special attention in the quality assurance system is paid to assess the quality of study programmes by analysing quantitative and qualitative indicators, assessing the quality of the activities, the volume of studies, also the demand for graduates in the labour market, students' retention and the mobility of students and staff.

##### *(2) Expert judgement*

Internal quality assurance system is in place and includes multiple documents and policies that regulate the implementation and monitoring of the studies of the field.

Overall, special attention is given not only to assess the quality of study programmes but also to stay updated on the current demand for graduates in the labour market, students' retention and the mobility of students and staff.

#### *3.7.2. Evaluation of the effectiveness of the involvement of stakeholders (students and other stakeholders) in internal quality assurance*



### *(1) Factual situation*

The information obtained from SER and during the site visit shows that there is a regular involvement of stakeholders in the internal quality assurance system.

There also is constant feedback obtained from students and from other stakeholders. As stated in SER, following the *Procedure for managing feedback from stakeholders in KUAS*, students are periodically asked to assess the quality of teaching study courses, the quality of studies, and to participate in other targeted investigations. Graduates are surveyed about their readiness for professional activities and integration into the labour market, the quality of studies, and employment.

The participation and the involvement of stakeholders in the decision making process is based on their participation in the meetings of the Study Field Committee and serving on the Final Theses Assessment Committee. The stakeholders have a regular input as employers by evaluating the competencies of the graduates and their theoretical and practical preparedness.

Also, there is close cooperation with the stakeholders in organising students' professional internships.

During the site visit it has been pointed out that social partners are invited and actively participate in Profession Days, attend the meetings of the ALUMNI Club. They provide information about the labour market demand, qualification requirements, current innovations and trends in the professional field and career choices.

### *(2) Expert judgement*

KAUKO has an effective process in place by involving their stakeholders (students and other stakeholders, such as social partners) into their internal quality assurance system.

The stakeholders are participating in the decision making process by having a direct impact on the quality of the studies assurance by serving on the Study Field and Final Theses Assessment Committees, and also participate in the multiple activities by providing information regarding labour market demands and career-related opportunities.

## *3.7.3. Evaluation of the collection, use and publication of information on studies, their evaluation and improvement processes and outcomes*

### *(1) Factual situation*

As it is stated in SER (pp. 49-50), the self-assessment of studies in the field of Medical Technology is based on collecting valid and reliable data, their systematization and analysis, and the data are used for implementing and improving the field studies. Collected data also include the mobility of the academic staff and students. Also, there is information about project activities with foreign institutions; participation in national and international conferences, seminars, practical training; the employment and experiences of other Lithuanian (and foreign) HEIs implementing similar study programmes.

The information on study programmes, their evaluation and outcomes are available on the KAUKO website. It provides important information about the study process and includes the overview of the study programmes and the descriptions of offered courses. Also, the structure of the competitive admission score and opportunities for continuing studies and future career choices are provided.

The summarized data of evaluation are based on the results of students' surveys on teaching quality, study materials and course delivery, and they are regularly collected and posted. Overall, the results of the evaluation of the study programmes and the information about them are publicly available on the KAUKO website.

The data on lecturers' performance are accumulated in the Lecturers' Activity Planning Information System. The data on students' learning achievements are stored in the Study Management System. The data on general annual performance indicators (number of students, dropouts, the results of the mobility of students and the staff, graduates' employment, number of lecturers, etc.) are available in the KUAS Documentation Catalogue (SER, p. 52).

In addition, twice a year, the Faculty conducts surveys on the quality of organising professional internships and meetings with the mentors of academic groups and roundtable discussions with students. Institution-wide student surveys allow the teachers to identify specific strengths and areas for improvement. Meetings with students and roundtables allow identifying problems and adopting concrete solutions for improving study programmes of the field (SER, p. 52).

#### *(2) Expert judgement*

The process of data collection at the College is in place. It is based on collecting valid and reliable data, their systematization and analysis. A variety of methods are used to collect, analyse, and evaluate the information and data on the quality of studies in the field, including questionnaires, analysis of documents, roundtable discussions, monitoring of study activities, etc.

However, there are some public information aspects that could be improved.

Information provided in Lithuanian and English does not follow the same order and the English version does not fully mirror information provided in Lithuanian. For example, the English version does not have an alumni comment section. Also, the College should not upload Lithuanian documents under English titles (for example, 'the evaluation report' button on <https://www.kaunokolegija.lt/en/studiju-programos/biomedical-diagnostics/>).

KAUKO uses Lithuanian language only in all media channels, while both Facebook and LinkedIn provide translation options. Exclusive use of local language discourages potential international outreach of the College.

Information on admissions is clear, yet the amount of steps (clicks) needed to access it could be optimised.

Also, there is no clearly presented information about the focus of scientific research or any specific areas available for specialisation, neither by the College as the institution, nor by individual lecturers. The same argument could be said about the practical side of this: the College could explore and present more information with regard to the reputation of individual lecturers and their clinical achievements to boost the practical value of studies.

#### *3.7.4. Evaluation of the opinion of the field students (collected in the ways and by the means chosen by the SKVC or the HEI) about the quality of the studies at the HEI*

##### *(1) Factual situation*

According to the information given in the SER (p. 53), there are Institution-wide student surveys which allow identifying specific strengths and areas for improvement. Meetings with students and roundtables allow identifying problems and adopting concrete solutions for improving study programmes and the field of study.

According to the information given to the experts, the surveys of the students of the Medical Technology field in 2018-2021 have shown that students are satisfied with the chosen studies. As the positive aspects of the study quality, students identify the connection of theoretical lectures with practice, they value clearly presented information, informative and useful classes and competent lecturers.

It has been noticed that areas to be improved based on student's feedback are related to the content suggesting less focus on general courses and more focus on the courses closely linked to the study programme. The results of the surveys also show that lecturers do not always use the most appropriate teaching methods and sometimes lecturers are late to classes. Most students in the field believe that their academic load is appropriate. However, last year students, as well as working students, complained about the excessive workload. While assessing the conditions for studies and leisure, students are most happy with the Library; but they would like more spacious leisure areas.

Based on SER, p.53, during the lockdown period in April – November 2020, surveys of the academic staff and students were organised to receive feedback regarding distance learning and the difficulties encountered during virtual studies. The surveys revealed that students' motivation and attendance increased.

However, it was noticed that students have been minimally engaged in lectures (and were reluctant to turn on video cameras), that the workload for both lecturers and students has increased, and that ways of ensuring academic integrity during virtual assessment had to be found. In response to the results of these surveys, targeted training was organised for the academic staff, a platform for methodological assistance was developed, and additional information was provided to students (SER, p. 53).

In addition, twice a year, the Faculty conducts surveys on the quality of professional internships and meetings with the mentors of academic groups and roundtable discussions with students. Institution-wide student surveys, meetings with students and roundtable discussions are implemented in order to identify specific strengths and areas for improvement (SER, p. 53-54).

## *(2) Expert judgement*

The evaluation of the opinion of the field students is well collected and multiple surveys are used to obtain students' opinion on the quality of study process and suggestions for improvement.

Some study quality surveys are carried out not only at the institutional level, but also at the Faculty and field of study/programme level.

The students are satisfied with the chosen studies (especially informative and useful classes, competent lecturers, and the connection of theoretical lectures with practice), but there is a recommendation from students to give more attention to the content most applicable to the study programme (instead of general courses).

***Strengths and weaknesses of this evaluation area:***

***(1) Strengths:***

1. Effective and targeted management of feedback process, which ensures student-centred studies, academic and social support.
2. Active involvement of the academic staff, the Study Field Committee, and stakeholders in the process of improving the quality of studies.

***(2) Weaknesses:***

1. Recommendations/suggestions obtained from the feedback of field students should be re-assessed and implemented accordingly.
2. The external communication in social media should be improved including academic-scientific content which is completely missing currently.

## IV. RECOMMENDATIONS

Evaluation Area	Recommendations for the Evaluation Area (study cycle)
Intended and achieved learning outcomes and curriculum	<p>Description of learning outcomes could be refined by expressing them in terms of what the students are able to do after graduation, i.e. avoiding formulations like “understands”, “comprehends”, etc.</p> <p>The list of learning outcomes could also be shortened, as some repetition is present. For example, 2nd and 3rd anticipated learning outcomes in the Radiology study programme Knowledge and its application competence group (“2. Knows the technologies used for radiological procedures, the principles of operations and use of equipment &lt;...&gt;” and “3. Understands the essence and principles of radiological procedures &lt;...&gt;”) in general have the same meaning.</p> <p>The module of basics on public health and medical law helps to improve the knowledge about legal responsibility, but more comprehension on public health concepts and the role of medical technologies would be recommended.</p>
Links between science (art) and studies	<p>More extensive investigation of the benefits of innovation and applied research in the field of information and communication technology is recommended for the program, especially the benefits of artificial intelligence and data science.</p>
Student admission and support	<p>Competitive scores of entrants show that Kaunas College attracts motivated students. However, the number of students signing study contracts remains stable, and more growth of the study programmes by the increase in the numbers of admitted students is encouraged.</p>
Teaching and learning, student performance and graduate employment	<p>A broader comprehension of public health concepts and the role of medical technologies relating to up to date preparedness of the graduates for advancements in clinical practice is recommended for both study programmes.</p> <p>Introduction of students to digital health technologies in their fields of specialization would enhance their future capacities to work in highly multidisciplinary environments and prepare for team work.</p>
Teaching staff	<p>Strengthening the competencies of creating digital content, using various forms of e-studies, and improving language skills is suggested.</p> <p>The inclusion of the lecturers addressing recent developments of</p>

	healthcare management / information and communication technology would be beneficial.
Learning facilities and resources	As both study programs are using multiple teaching sites and a variety of teaching and learning facilities, a new campus for medical studies would help to overcome physical limitations by improving the access to learning facilities and could help to increase the admission of students.
Study quality management and public information	<p>Obtained recommendations/suggestions from the feedback of field students should be re-assessed and implemented accordingly.</p> <p>External communication in social media should include the promotion of scientific and practical content, achievements, better presentation of the achievements of the College and its community, as well as promotion of the programs under the evaluation.</p>

## V. SUMMARY

*Study aims, outcomes and content.* Two study programmes (Biomedical Diagnostics and Radiology) in the field of Medical Technology are aligned with the mission of KAUKO and in line with the KAUKO Strategy for 2021-2025. They are focused on the development of practice-oriented studies and have well incorporated applied research activities. The learning outcomes are focused on training of highly qualified specialists which corresponds with the needs of the labour market and society.

*Links between science (art) and study activities.* The study programmes are focused on the practical applicability of the learning outcomes, interdisciplinarity, and internationality, and the study content is in line with the latest scientific and technical developments of Medical Technology. The students are actively involved in the applied research and faculty members are productively participating in the research being a part of the international research community. Their research is based on practical applicability and integration of science and studies. However, more extensive investigation of the benefits of innovation and applied research in the field of information and communication technology would be recommended for the study field programmes, especially giving attention to the artificial intelligence and data science exploration and inclusion.

*Student admission and support.* Both study programmes of the Medical Technology field dedicate a good attention to publicity of admission. Process of admission to the field programmes is based on well presented, transparent and accessible public documents. It has been noticed that the number of students signing study contracts remains at the same admission levels, therefore, more growth for both study programmes by increasing the numbers of admitted students is encouraged. The procedures to ensure that qualifications obtained abroad, part-time studies and previous non-formal and informal learning are credited, are in place and appropriate. All students have the opportunity to go for part-time studies or professional internships (incl. graduate internships immediately after studies) under Erasmus+, Nordplus programs and bilateral cooperation agreements. Overall, a variety of psychological, social, financial and academic support is accessible for students.

*Teaching and learning, student performance and graduate employment.* At the level of the study programmes of the field, the progress of students is well monitored by the Study Field Committee. The usage of KAUKO Study Management System allows to record the progress in learning/study process and to identify the need for subsequent planning, self-assessment and improvement of study progress monitoring.

The assessment procedures for both study programmes are based on multiple criteria to assess the level of knowledge, abilities and practical skills and sufficient attention is given to practical training and self-study. The teaching and learning process takes into account the needs of the students and enables them to achieve the intended learning outcomes. Professional internships are presented as separate course units, and the placement includes a

variety of healthcare institutions or research-based facilities, biotechnology, pharmaceutical companies, etc. An individual study plan can also be designed and students may also be provided with a free study schedule.

High employability rates of graduates show a successful preparation for their future employment. However, a broader comprehension of public health concepts and the role of medical technologies relating the information to the up to date preparedness of graduates is recommended for both study programmes. Also, the introduction of students to digital health technologies in their fields of specialization would enhance their future capacities to work in highly multidisciplinary environments and prepare for team work.

*Teaching staff.* For both study programmes, the number of academic staff is sufficient, and their qualifications are appropriate for achieving the anticipated outcomes. Also, the conditions for academic mobility of the teaching staff are well established and transparent, and participation in mobility programs is considered as an integral part of work and is well supported by administration.

An adequate number of lecturers-practitioners allows a great integration of professional experience into the study process and helps to achieve competencies based on the market needs. The academic staff is motivated to conduct applied research and there are opportunities for in-service training offered for them. Overall, the strengthening of the competencies of the teaching staff by helping to create digital content, using various forms of e-studies, and improving language skills would be beneficial. Also, the inclusion of the lecturers who can address recent developments in healthcare management / information and communication technology would be recommended.

*Learning facilities and resources.* Both study programmes have all necessary facilities for the studies and access to practical sites by allowing the students to obtain practical skills and develop their competencies. These facilities comply with hygiene and occupational safety requirements. New equipment and study programme related tools/technologies are regularly purchased or updated, and necessary funding is in place. The Library and Information Resource Centre provides professional information services and access to the information resources needed and offers a modern learning space for students. All course materials are available digitally and teaching is performed in the Moodle e-learning environment. Students have multiple options for non-academic activities at the College, which indicates a great attention to a balanced lifestyle of students. It has been noted that both study programmes are using multiple teaching sites and a variety of teaching and learning facilities, therefore the building of a new campus for medical studies would help to overcome physical limitations related to the access and transportation. It may also help to expand the programme in terms of higher admission of students.

*Study quality management and public information.* Internal quality assurance system is in place by involving their stakeholders (students and other stakeholders, such as social partners) and multiple documents and policies that regulate the implementation and monitoring of the studies are present. The Committee of the Study Field of Medical Technology helps to analyze the quality indicators and to include the opinion of stakeholders



by developing plans for improvement/ renewal of the studies. The attention is given not only to assess the quality of study programmes but also to stay updated on the current demand for graduates in the labour market, students' retention and the mobility of students and staff. In general, the publication of information on study programmes, their evaluation or outcomes are available on the KAUKO website. It provides important information about the study process and includes the overview of the study programmes and the descriptions of offered courses.

It is recommended that obtained suggestions from the feedback of field students should be re-assessed and implemented accordingly. Also, the external communication in social media should include promotion of scientific and practical content, achievements, better presentation of the achievements of the College and its community, as well as promotion of the study programmes under the evaluation.

Overall, both study programmes are focused on the practical applicability of the learning outcomes preparing their graduates for today's labour market, and the content and the obtained competencies correspond to the latest scientific and technical developments.

**Expert panel chairperson signature:**

**Prof. Dr. Dalia Giedrimienė**