CENTRE FOR QUALITY ASSESSMENT IN HIGHER EDUCATION

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EVALUATION REPORT
STUDY FIELD of MEDICAL TECHNOLOGY
at Vilniaus kolegija

Expert panel:

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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

Vilnius
2022

Study Field Data

Title of the study programme	**Biomedical Diagnostics**	**Radiology**
State code	6531GX013	6531GX018
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 of Health Sciences / Qualification of Biomedical Technologist	Professional Bachelor of Health Sciences/ Qualification of Radiology Technologist
Language of instruction	Lithuanian	Lithuanian
Minimum education required	Secondary education	Secondary education
Registration date of the study programme	29/08/2001	21/11/2016

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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 *14 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;*
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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 the site visit:

No.	Name of the document
1.	Examples of quality surveys conducted in 2020-2021 and their generalized results.
2.	Procedure of feedback for study quality improvement (in Lithuanian), approved on 8th of April, 2019.
3.	Visual presentation (photos) from practical classes, November 2021

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

Vilniaus kolegija (hereafter – VIKO, also - College) was established in 2000 and is by now the largest professional higher education institution in Lithuania, with 42 study programmes (across 12 fields of study) and 6393 students in total (as of 1 October 2020).

VIKO implements two study programs in the Medical Technology study field, Biomedical Diagnostics and Radiology, supervised by the Department of Medical Technology and Dietetics at the Faculty of Health Care. Both of these programmes aim to prepare professional bachelors of health sciences who are able to perform laboratory diagnostic tests or medical imaging and medical radiology procedures both independently and in a team, based on science-based practices, innovations in medical technology, ensuring quality and safety.

II. GENERAL ASSESSMENT

Medical Technology study field and *first cycle* at Vilniaus 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	4
	Total:	**28**

*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

Factual situation. VIKO provides two professional bachelor study programmes in the Medical Technology study field - Radiology and Biomedical Diagnostics. The fact that both professions, i.e., Radiology technologist and Biomedical technologist, have been defined by the Lithuanian medical standards (Lithuanian medical standard MN163:2019 "Radiology Technologist" and Lithuanian medical standard MN157:2019 "Biomedical technologist", SER p. 8), means that 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.

Learning outcomes of both study programmes are provided in two different formats - one (SER, tables 1 and 2) follows the national documents of professions and has two groups of competences - general and professional competences, and second (SER, tables 3 and 4) follows the Descriptor of medical technology study field, where 5 competence groups and learning outcomes are defined.

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 is to prepare professional bachelors of health sciences to be able to perform laboratory diagnostic tests or medical imaging and medical radiology procedures (both independently and in a team) by ensuring quality and safety. Graduates of the Biomedical Diagnostics study programme are supposed to be able to work in haematology, biochemistry, microbiology, immunology, cytology, forensic medicine, and other laboratories, which are located in personal health care facilities, in mobile diagnostic stations, public health centres, research, and other institutions. Accordingly, graduates of the Radiology study programme are supposed to be able to work in radiological diagnostics departments of all levels of health care institutions performing X-ray, magnetic resonance, angiography, nuclear medicine, radiotherapy, computed tomography, and other radiological testing (SER, p. 10).

Expert judgement. In general, the aims and learning outcomes of both study programmes (Radiology and Biomedical Diagnostics) conform to the needs of society and labour market.

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

Factual situation. The aim of the Radiology study programme is to prepare professional bachelors of health sciences, who will be able to perform medical imaging and medical

radiology procedures both independently and in a team, based on science-based practice, innovations in medical technology, ensuring quality and safety.

The aim of the Biomedical diagnostics study programme is to prepare professional bachelors of health sciences, who will be able to perform laboratory diagnostic tests both independently and in a team, based on science-based practice, innovations in medical technology, ensuring quality and safety. These aims and learning outcomes of study programmes are in line with the mission of VIKO, which is "to train practice-oriented specialists in study fields <...> of health <...>".

Expert judgement. Both study programmes of Medical Technology study field align well with the mission of VIKO and substantiate the compliance of the study programme with the needs of society and the labour market, as it is in line with the Lithuanian Health Programme 2014-2025 and the Lithuanian Health System Development Framework 2011-2020 (SER, pp. 9-10). The overall study field aim is also perfectly in line with the vision and mission of VIKO.

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

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). 151 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.

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). 151 credits are used to accomplish the study field aims. 36 credits are allocated for practical activities, 10 credits for final thesis of a professional bachelor.

Practical training amounts for 34% of the scope of the study programmes. 100% of the lecturers in both study programmes have more than 3 years practical experience in their subject field. 39.1% of teaching staff hold doctoral degrees.

Expert judgement. 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

Factual situation. Learning outcomes of both study programmes are provided in two different formats - one (SER, tables 1 and 2) follows the national documents of professions and has two groups of competences - general and professional competences, and second (SER, tables 3 and 4) follows the Descriptor of Medical Technology study field, where 5 competence groups and learning outcomes are defined.

There is a good mix 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.

Expert judgement. The teaching/learning and assessment methods are compatible with the aims and learning outcomes of the field and cycle of the study programmes. However, a more detailed mapping of learning outcomes of study field, study programme, and subjects with the learning outcomes defined in the professional standard is recommended.

Also, learning outcomes should be expressed in terms of what the students are able to do after graduation. In addition, harmonisation of learning outcomes between the two study programmes is recommended. For example, learning outcome "Select learning strategies and methods" for the Radiology programme is assigned to the competence "Abilities to Conduct Research", while for Biomedical diagnostic programme the same learning outcome is assigned to the competence of "Personal Abilities".

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

Factual situation. In both study programmes of the Medical Technology field, 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) 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 study students are provided with courses intended to develop special skills needed for the profession.

The learning outcomes of individual subjects for both study programmes map well into study programme aims and learning outcomes.

From the alumni feedback during the site visit, it can be noted that Radiology students would benefit from acquiring practical skills of entering catheters as this kind of procedure sometimes is needed in performing CT.

Expert judgement. The totality and sequence of the study subjects, including the internship and the final thesis, enable the student to develop the competences required of a graduate of professional bachelor in the Medical Technology field. At the same time, the broadening of the practical skill set is recommended.

Introduction of safety practice and theory, as well as development of some practical clinical work skills with patients for the Radiology programme, would be beneficial for the future students of the programme.

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

Factual situation. The opportunities for the students to personalise the structure of their study programme are provided by the possibility to chose three optional subjects, i.e., in the 3rd and 5th semesters in Biomedical Diagnostics programme and in the 3rd, 4th and 5th

semesters in Radiology programme there are 6 (Biomedical Diagnostics) and 9 (Radiology) credits for optional subjects that can be chosen from other study programmes provided by VIKO.

Expert judgement. Medical Technology field study programmes provide the opportunities for personalization of study programmes by free choice of three subjects, 3 credits per each subject (total 9 credits), which is good.

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

Factual situation. The principles of preparation of final theses, formation of a commission, and defence procedure are described in the Description of the Procedure for Preparation and Defence of Final Theses. According to the list of final projects presented to the experts, the topics presented for the study programmes of the Medical Technology field are all for the area of Radiology and Biomedical Diagnostics.

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 labour market, professions acquired are standardised by the national documents, and close link to professional societies and social partners allow keeping the programmes up-to-date and actual.
2. Students of both study programmes are provided with possibilities to individualise their studies.

(2) Weaknesses:

1. Learning outcomes should be expressed in terms of what the students are able to do after graduation.
2. Harmonisation of learning outcomes between the two study programmes is recommended. For example, learning outcome “Select learning strategies and methods” for the Radiology programme is assigned to the competence “Abilities to Conduct Research”, while for the Biomedical diagnostic programme the same learning outcome is assigned to the competence of “Personal Abilities”.
3. Introduction of safety practice and theory with the development of some practical clinical work skills with patients for the Radiology programme, would benefit the future students of the programme.
4. It is recommended to broaden the practical skill set by providing courses on catheter entering, practising injections or similar.

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

Factual situation. The research is conducted in the area of Medicine and Health Sciences (M 000) and the field of Public Health Science (M 004), and in the study field of Medical Technology (G09). Innovative content is reflected in most of the subjects. Also, despite the restrictions caused by COVID-19 pandemics, the lecturers and students were actively participating at the conferences and scientific events using online channels.

The lecturers of the study programmes Biomedical Diagnostics and Radiology published 16 publications in the study field of medical technology in scientific journals and conference proceedings, 7 of them together with students. Lecturers gave 17 papers at international and national scientific-practical conferences in the study field of Medical Technology.

During the period under analysis, two articles for science popularization were published in publications for the academic community. One of the articles was published in a journal with a high impact factor. Three national scientific-practical conferences were organized at the faculty. Also, teachers working in the study field of Medical Technology conducted 14 applied researches and experiments together with students, examining both specific and public health issues.

Lecturer of the subject Chemistry in the study field of medical technology participated in the European Cooperation in Science and Technology (COST) activity “Zinc Biology Network (Zn-Net)” and conducted two zinc biology studies with international partners. Another activity in the COST was conducting a study “Management of Adverse Events in Healthcare Institutions”.

Two students of the study programme Biomedical Diagnostics participated in the national scientific-practical conference “Biomedical Diagnostics: Science and Practice” and gave oral presentations, abstracts were published in the journal "Laboratory Medicine" (2019, No. 1).

Three international projects were successfully implemented during the evaluation period. One of the projects was under the auspices of the interdisciplinary international project "Diversity and Parenting" and two Erasmus+ partnership programs.

Expert judgement. The science activities in the field of research related to the Medical Technology study field are in line with the objectives of the study programmes and are very well established in the national and international context. From the applied research point of view, these are well-established bachelor programmes for laboratory and radiology professionals to fulfil healthcare providers’ demands.

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

Factual situation and expert judgement. The content of study programmes is constantly updated in light of the latest scientific and technological achievements. As mentioned above, the faculty members are active in writing scientific papers and presenting in the scientific meetings. As stated in the SER and confirmed during the on-line site-visit, the participation of teachers in applied research activities and conferences allows to include into the teaching process the latest and most relevant examples of the progress in the field of science and technology by connecting theory with practice.

Innovative content is reflected in many field subjects. Examples of classes where most recent aspects of research and innovation have been taken into account include introduction to sample preparation, identification using innovative histological testing technologies in the pathology testing laboratory, immunology and immunological testing, analysis of the latest scientific and technological development in the field of molecular testing, in particular the polymerase chain reaction method, radiation safety, particularly analysis of radiation safety data, requirements for radiation safety of personnel of healthcare institutions, overview of the main and latest methods of medical imaging, recognition and data analysis, changes in international quality standards, innovative diagnostic and treatment methods such as the latest hybrid SPECT/CT, and others.

Also, close cooperation with the industry partners keeps scientific work up to date. The faculty has cooperation agreements with Ltd "Affidea", LLTD, UAB "SYNLAB Lietuva" and UAB "Balticpharma" for the performance of applied research and experimental development.

Participation in the international projects provides an opportunity for teachers and students of the Medical Technology study field to improve and disseminate knowledge, develop communication skills, and establish contacts with institutions providing training services abroad.

In applied research, the plan of VIKO (SER, p. 22) to earn funds from outsourced consulting activities, to upgrade competence development courses and to conduct educational theoretical and practical seminars for the public and specialists on the latest medical technologies and public health issues is well justified and supports broad-based development.

Most recent trends in the medical technology research field also include components of information and communication technology. This aspect could be addressed more broadly in the content of the studies. Integrating the research work of clinical diagnostics with the latest advances in electronic medical records and the national health record, data privacy and security issues, also the inclusion of artificial intelligence (AI) and other innovative technologies can add value to the Medical Technology field programmes.

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

Factual situation and expert judgement. For the past three years, students in the field of Medical Technology have been involved in applied research activities. Close cooperation with large healthcare institutions gives a good background to combine applied research with

practical skills. The faculty has developed competence development programs and organized several non-formal training courses.

As an example, the ongoing Erasmus+ strategic partnership project "Enhancing Staff Research and Innovation Capacity in Professional Higher Education" (RECAPHE) aims to refine the competences of professional higher education researchers and to prepare a description of competences. The project develops and improves training materials for the extension of competences of professional higher education institutions academic staff and is related to research and innovation, regional development and student involvement, plans to discuss project results and create an institution researcher profile at national researcher meetings. This project is important in shaping the attitude of researchers in the field of Medical Technology to the priority aspects of self-education.

Students in the field of medical technology actively participate in professional webinars organized by Lithuanian and international professional associations.

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. Medical Technology field study 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

Factual situation. The Ministry of Education, Science and Sports of the Republic of Lithuania provides the minimum requirements for entrants and the principles for calculating the competitive score for a higher education institution. A similar number of students enter the Radiology and Biomedical Diagnostics study programmes each year. A slight decrease in popularity in the Radiology study programme is observed in the 2020 admission.

Expert judgement. VIKO follows the instructions of the Ministry of Education, Science and Sports of the Republic of Lithuania, the rules of admission of students, which are approved by the Academic Council. Although studies attract those who want to study, the publicity system

should be considered so that the number of students willing to study would increase rather than decrease.

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

Factual situation. A person having completed higher education at a foreign institution and wishing to be credited must submit a document confirming recognition. Information on the crediting of previously obtained results is published on the VIKO website. Not more than 75 percent of the previously completed study programme volume is credited. 2018/2019 m. Eleven students in the field of Medical Technology are credited with 6 to 73 ECTS. 2019/2020 m. Eight students in the field of Medical Technology are credited with 17 to 59 ECTS. In the autumn semester of 2020, nine students in the field of medical technology were credited with 18 to 159 ECTS.

Expert judgement. Information about the crediting of previously obtained results is available to students and they take advantage of this opportunity. Students are advised on the crediting of results. Procedures for the recognition of foreign qualifications, part-time studies and prior non-formal and informal learning are appropriate. About 15 percent of medical technology field students use this procedure.

3.3.3. Evaluation of conditions for ensuring academic mobility of students

Factual situation. Information on the conditions and opportunities for participation in the academic mobility programs is published on the VIKO website. Also, there are regularly organized information seminars on the Erasmus+ program. Students receive invitations via e-mail containing the contact details of the Erasmus coordinator. After the period of study abroad, students present documents certifying the duration and assessment of the subjects studied and fill in a descriptive report on the study exchange.

According to the information given in the SER (p. 26), there were no students coming from abroad to study full-time in the Medical Technology field programmes at VIKO during the assessment period. Still, there was one final work prepared by a student from Austria (Joanneum University of Applied Sciences) who came for the whole semester in 2018.

Speaking about students' outgoing mobility, the number of students going to Erasmus+ programs for internships and studies every year is from 2 to 5 students. At the time of the expert panel's site visit, the study visit of two students from Pamukkale and Ibrahim Chechen Universities (Turkey) was being coordinated.

Expert judgement. Efforts are made to publicise mobility programs for students, and students take advantage of mobility opportunities, although the participation levels could be enhanced. Alongside usual academic exchanges, HEI could consider more opportunities of combining a study period abroad with a traineeship, further enhancing the learning outcomes and development of transversal skills.

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

Factual situation. Students receive financial, psychological, social, academic and other support consistent with the requirements of the study programmes, teaching/learning methods, and assessment. Accommodation in a dormitory is provided. Two students with special needs received a targeted allowance to meet special needs. Ten students who meet the established criteria for socially disadvantaged students received a social scholarship from the State Study Fund. One student received support for foreign Lithuanians studying in Lithuania. One student was paid a lump sum, which is granted from the Faculty Scholarship Fund due to death of family members, difficult financial situation, material losses caused by long-term illness (trauma), theft, natural disaster. Seventy-four students were awarded incentive scholarships from the Faculty Scholarship Fund. Thirty-two students were awarded bonuses for active participation in the activities of the students of the Faculty.

Expert judgement. Students are provided with opportunities to receive financial, academic, social and psychological support. Every student is given the opportunity to receive a scholarship, and they are given enough information on how to get a scholarship, such as a social scholarship awarded by the state study fund.

3.3.5 Evaluation of the sufficiency of study information and student counselling

Factual situation. Students of Radiology and Biomedical Diagnostics study programmes have the opportunity to consult individually with the staff of the departments administering studies and the department supervising study programmes, also with the lecturers and practice supervisors working in them. Students are consulted about future career opportunities and informed about vacancies. Students are included in the composition of councils, so they participate in decision-making and receive information about academic changes in the programmes. Information about the study programmes is also provided by the Academic Information System.

Expert judgement. Students are provided with counselling opportunities and study information. It is gratifying that students are included on the faculty and academic councils as it allows them to express their views on the discussed topics.

Strengths and weaknesses of this evaluation area:

(1) Strengths:

1. A significant number of students are admitted each year.
2. Procedures for the recognition of foreign qualifications, part-time studies and prior non-formal and informal learning are appropriate and students use this opportunity.
3. Students take advantage of the academic, financial and psychological assistance provided each year.
4. Students are included in the composition of councils, so they participate in decision-making and receive information about academic changes.

(2) Weaknesses:

1. Participation of incoming/outgoing students in mobility programs could be enhanced.

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

Factual situation. As it is presented in the SER (p. 29), the teaching and learning process includes theoretical, practical, and independent work. Teaching staff set up and communicate learning goals in a way that students can prepare, examine and understand the problem. Based on the independent work task, students participate actively in the learning process and receive feedback as to the progress made.

Most of the teaching activities are suitable, adequate and they make an important input to encourage the student to study evenly, to account for achievements consistently, as it is also stated in the SER (p. 30). In addition, assessment and feedback to students are provided in a timely manner by the teaching staff.

Information from experts' online site visit also confirms that the classes can be provided in the virtual learning environment. Due to the covid-19 pandemic and the quarantine, lectures were given remotely and practical laboratory work was demonstrated by video recordings, etc. Of course, in medical technology studies it is important to develop practical skills and have training facilities for students' clinical education, offering the possibility of training clinical procedures in a safe and fault-forging environment prior to real life application.

Expert judgement. Overall, the teaching and learning process sufficiently takes into account the needs of the students to achieve learning outcomes. Speaking about the future developments, the multidisciplinary nature of studies could be even more aligned with practical tasks/activities and promoted along with the theoretical knowledge in order to equip students with real world knowledge. The effective improvements to digital technology that encourage active learning, knowledge construction, inquiry, and exploration based on the learning outcomes would also be a great benefit for both Medical Technology field study programmes.

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

Factual situation. It is noticed that the potential and contribution of socially vulnerable groups and students with special needs are recognized and valued, as it is described in the SER (p. 29-30). Students from socially vulnerable groups and students with special needs are regularly consulted by the Study Division of the Faculty.

The VK Study Procedure states that a student has the right to "account for work in alternative ways if he/she has a disability due to which he/she cannot account according to the established procedure, and the alternative account method ensures that the intended study results will be achieved" (SER, p. 29). The Description of the Study Achievement Assessment Procedure stipulates that "when assessing the study achievements of students with special needs (visual, hearing, mobility or other disabilities), flexible forms of assessment are applied, adapted to the possibilities of these persons (e.g., by increasing the font of examination tasks, extending the time for the assessment of study achievements, etc.)" (SER, p. 29). When a student notifies about his/her special needs, the Study Division of the Faculty informs the lecturers about it and initiates the preparation of recommendations as needed. Each study year 1-2 individuals take advantage of these individualised conditions. As far as possible, the necessary tools for the assessment of study achievements are provided and the adaptation of the place of assessment of study achievements is ensured. One of the principles of assessment for learning outcomes, defined in the Description of the Study Achievement Assessment Procedure, is inclusion, which means that assessment must measure the achievement of the same learning outcome, but be flexibly adapted to different (individual) learning needs (disability, pace, learning style, etc.).

Expert judgement. Based on the information provided in the SER and the evidence obtained during discussion with teaching staff at the time of on-line site visit regarding individualised study plans for students with special needs and socially vulnerable groups, the experts believe that the institution aims to ensure access to study by providing flexible forms of assessment, using tests with enlarge fonts, extending the time for the test and etc.

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

Factual situation. As stated in the SER (p. 29-30), the study progress of students in the field of medical technology is constantly monitored by subject teachers and the assessment of study subject learning outcomes is cumulative. The use of cumulative assessment encourages students to study evenly and to account for their achievements consistently.

The monitoring of study results is summarised twice a year and recorded in semester progress summaries. Multiple student progress/non-progress indicators have been used to identify the failures, they are summarised once a year and included in the annual report of the Faculty. The Division of Studies presents the summarised annual indicators to the academic community of the Faculty.

In the Medical Technology field study programmes, there are 2-3 students who drop out every year due to the lack of progress. The reasons for non-progress are clarified and ways to eliminate them are identified.

Expert judgement. Monitoring of student study progress and feedback to students to promote self-assessment and subsequent planning of study progress is systemic and sufficient.

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

Factual situation. The monitoring of graduates' employment and career is carried out based on the Description of the Feedback Procedure to Improve the Quality of Studies at the VK. Surveys of graduates are conducted half a year after graduation by submitting an electronic questionnaire asking them to answer questions about employment, current working activity, location, and nature of work.

As it is known from the SER (p. 7), VIKO's Career Centre advised students on practice and job search, as well as provided knowledge about the situation in the labour market, career planning. In addition, it contributes to the nurture of students' entrepreneurship competences. The employability of VIKO's graduates, including Medical Technology field graduates, is high, reaching more than 70%.

Expert judgement. During the experts' site visit, graduates confirmed that they are satisfied with knowledge they have obtained and that their studies have ensured high employability. Former students have confirmed that they feel happy and have enough practical skills, knowledge and have successful careers for various working areas in the health sector (clinical pathology, radiology technologist, National Public Health Surveillance Laboratory, etc.). On the other hand, as presented in the SER (p. 29), graduates also successfully continue their studies at foreign higher education institutions such as the University of Aalborg (Denmark), the University of Copenhagen (Denmark), and others.

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

Factual situation. According to the information given in the SER (p. 31), the main document regulating academic integrity in VIKO is the Code of Academic Ethics. Academic integrity in the assessment of study achievements is defined in Chapter IV of the Description of the Procedure for Assessment of Study Achievements. Academic ethics is overseen by the Academic Ethics Committee. Each student becomes acquainted with and signs the Student Declaration of Integrity, in which he/she freely and consciously undertakes to comply with the provisions of the VK's Code of Academic Ethics governing ethical conduct. The Study Procedure also includes provisions on tolerance and non-discrimination: students have the right to freely express their thoughts and views; to receive social and material support according to the established procedure, students with disabilities can report for their studies in alternative ways.

As stated in the SER (p. 31), in the last three years, there have been no cases of academic dishonesty among students in the field of Medical Technology.

Expert judgement. In expert panel's opinion, there are sufficient policies to ensure academic integrity, tolerance and non-discrimination.

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

Factual situation. According to the information given in the SER (pp. 31-32), the procedure for submitting and considering appeals is established (document Regulation of Appeals). According to this document, a student may appeal the assessment of the subject's mid-term and/or final assessment, the subject's mid-term and/or final assessment procedure, the final work assessment procedure, credit transfer, assessment, and recognition of non-formal adult learning achievements. The appeal must be reasoned and submitted in written form within the prescribed time limit. Depending on the nature of the appeal, it is submitted to the Dean of the Faculty or the Rector of the VK. Upon receipt of the appeal, a 5-member Commission of Appeal is formed to examine it. This Commission examines the appeal and makes a decision, finding the existence of an infringement or the absence of an infringement; the Commission decides to satisfy or not to satisfy the appeal.

Expert judgement. Procedures for the submission and examination of appeals and complaints regarding the study process are in place and seem to be appropriate.

Strengths and weaknesses of this evaluation area:

(1) Strengths:

1. Dedication to ensure graduates' possibilities of continuation of studies in the second cycle and clear articulation of this.
2. Over 70% of Medical Technology study field graduates find employment which fully or partially corresponds to the completed study programme.

(2) Weaknesses:

1. Radiology study programme's teaching materials should be enhanced with special programs for radiology, and competencies development in clinical safety and nursing skills should be enhanced, which are relevant for developing practical work skills of the graduates.
2. The study programme of Biomedical diagnostics should enhance its materials and training focus on practical skills development in the field of bioinformatics to support the future graduates' competitiveness in the market and enhance their employment opportunities.
3. Effective improvements to digital technology that encourage active learning, knowledge construction, inquiry, and exploration based on the learning outcomes are recommended.

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

Factual situation. The list of lecturers in the study programmes Biomedical Diagnostics and Radiology of the study field of Medical Technology consists of 23 persons. The lecturers have been working continuously in the institution for at least half of the full-time position and at

least 3 years. The average pedagogical work experience of teachers is 18,9 years, and the average practical experience in the field of the taught subject is 23,5 years. Nine of the lecturers have doctoral degrees. Sixteen subject teachers of the study field of Medical Technology conducted applied research, gave oral presentations, and published articles in publications according to their areas of scientific interest. All lecturers teaching theoretical subjects in the study field have at least a master's degree and three years of practical work experience. The pedagogical and scientific skills of the team of the lecturers are appropriate and at a very good level.

Nine lecturers participated in organising scientific-practical conferences and seminars for practising specialists, lecturers, and students, two carried out project activities. Five lecturers were engaged in consulting and expert activities. Five teachers in the field of Medical Technology guided the students' research.

During the practices of professional activity, two or three students are supervised by one practice supervisor. One teacher supervises an average of 5 students preparing a professional bachelor thesis. The lecturer‘s contact work with students is 760 hours per academic year which is a half of the hours assigned to the full position. The rest of the hours are devoted to applied research, project activity, organisational and methodological activities, and the development of professional competences.

Expert judgement. Lecturers of the Medical Technology field have very appropriate knowledge and skills to teach laboratory and diagnostic imaging professionals on the bachelor level. The asset is that the faculty consists of lecturers that have both strong theoretical and practical experience. In addition to basic education needed for professional work, this provides students with real and timely information about innovations in practical activities and their future career opportunities.

The faculty would benefit from the teaching staff with healthcare management competence. Also, new information and communication technology fields could be addressed (in both study programmes) in more depth.

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

Factual situation and expert judgement. According to the information given in the SER (pp. 35-36), the academic mobility of teachers is coordinated by VIKO's International Relations and Projects Service, assessing the available financial resources and the priorities of the faculties. The administration of the faculty promotes internationalization and strives for this process to be developed evenly in all study programmes carried out by the faculty. The main source to finance international exchange of experiences is Erasmus+ program. However, there are more full-time teachers applying for Erasmus+ exchanges than the financial means allow. Therefore, any resources that would support international exchange would be beneficial for the teaching quality in the future. To cover this gap lecturers of the study programme also use other forms of international activities like delivering presentations at international conferences and participating in joint projects. During the evaluation period, the teaching staff

has visited all together 9 countries while teachers from 6 countries have visited the Medical Technology field study programmes in Vilnius. Given that part of the evaluation period fell under the COVID-19 pandemic, the number of countries visited as well as the countries from which teachers came is very good.

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

Factual situation and expert judgement. When planning the annual budget of the institution, funds are provided for the improvement of teachers' competences. The plans for the next year's professional development in scientific, didactic, or professional fields are made under the coordination of the head of the department. Before the academic year, the competences development plan is prepared, which is submitted to the faculty administration. This ensures the appropriate and purposeful development of teachers and the distribution of funds allocated for this purpose.

As stated in the SER (p. 35), an informational seminar is organized for beginning teachers starting the academic year. Teachers are also offered internal training to improve the competencies of pedagogical and general abilities. At the end of each academic year, teachers prepare a self-assessment of their activities, which outlines the activities performed and competencies developed during the year. The self-analysis is presented to the head of the department. The internal training and the practice to use self-assessment show that a lot of attention is paid to the teaching quality and to the feedback loop.

Strengths and weaknesses of this evaluation area:

(1) Strengths:

1. Very well balanced teaching staff with practical and scientific experience.

2. Optimal staffing of the study programmes.

(2) Weaknesses:

1. Limited funds for international academic mobility.

2. Teaching staff would benefit from the lecturers addressing recent developments of healthcare management and 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

Factual situation. According to the information given in the SER (pp. 38-42), there are specialized classrooms with the main tools and equipment concentrated for study field

subjects Anatomy, Physiology, Medical Procedures and First Medical Care, Theory and Practice of Nursing Technique, Applied Research and Statistics.

Practical classes of the study field subjects Biochemical Testing, Microbiological Testing take place in specialized training laboratories, which are equipped with the necessary equipment, tools, and reagents.

The Chemistry Laboratory of the Faculty of Agrotechnologies and the equipment and tools in it are used for the study of the subject Chemistry of the study programme Biomedical Diagnostics, and the subject of Biomedical Physics is studied in the Physics Laboratory of the Faculty of Electronics and Informatics.

The lectures and practicums of the subject Cytology, Histology and Histological Technique are organized at the National Center of Pathology. Lectures and practicums of subjects Human Body Fluids and Secretions Laboratory Testing and Hematological Testing take place in the clinical laboratory of Vilnius Republic University Hospital, while Immunology and Immunological Testing, Molecular Testing practicums and Quality Management classes are performed in the laboratories of PI "Central Polyclinic". The practises of subjects Conventional Radiology, Nuclear Medicine, Computed Tomography in the study programme Radiology are performed at the Radiology Center of Vilnius University Hospital "Santaros klinikos" and Ltd "Affidea Lietuva". The Department of Radiology of the National Cancer Institute provides an opportunity for students to study the subject of Radiotherapy and Radiobiology. The practises of subjects Special Radiological Testing and Magnetic Resonance Imaging and Ultrasound Diagnostics are held at the Diagnostic Center of Ltd "Affidea Lietuva".

In 2020, the Faculty Library Fund accumulated 21,873 thousand units/4,706 thousand titles of printed publications. In 2018-2020 the fund of the Faculty Library was supplemented with 1532 new books in the field of natural sciences and medicine.

2020 VK Library subscribed to 20 databases (2019 – 19 databases), most of them (14) - through LMBA project "eMoDB.LT3". Academic Search Complete, Medline, Health Source: Nursing/Academic Edition, Health Source: consumer edition, OpenDissertations, eBook Academic Collection, Emerald Management eJournals Collection, Taylor & Francis, ProQuest Ebook Central databases are suitable for faculty study programmes.

The need to increase the speed of wireless internet connection and application of digitized methods for quality monitoring in the field of Medical Technologies were expressed in the SER as the need for the use of digital technologies in studies grows.

The faculty has a dining room with 245 seats and a teaching staff recreation part with a total area of 520 m2. There is a 650 m2 gym, and the gym offers physical education and training.

Expert judgement. The suitability and adequacy of the physical, informational and financial resources of the field studies is sufficient to ensure an effective learning process. However, the majority of important technical training is organised outside the College facilities in partner institutions. The faculty also relies on the labs of other faculties for both programmes, which indicates significant limitations for the study programmes to function autonomously.

Student accommodation facilities should be modernised, and the space for students' recreation should be improved/created (the judgement is based on the SER and online search for visual information).

The online information about the physical culture and sports centre at VIKO leaves a good impression that the College takes sufficient care about physical and mental wellbeing of the students' community.

In addition, as it was stated under 3.4.1., there should be effective improvements to digital technology that encourage active learning, knowledge construction, inquiry, and exploration on the learning outcomes.

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

Factual situation. As stated in the SER (p. 42), measures for the study field of medical technology are purchased annually for 10000-12000 Eur, the priorities of which are refined by the Department, considering the needs of teaching staff and students.

The project ("Modernization of the study infrastructure of the VK") funds are used for the creation of new laboratories: chemistry, clinical, molecular, microbiological testing, and the renewal of the biochemical testing laboratory. Within the frames of this project, it is planned to purchase specialised equipment for 1 mln. Eur – to install a radiology simulation room, to purchase tools and software for the development of skills for patient positioning and imaging techniques. The project funds will also be used to purchase basic and computer equipment (magnetic, interactive whiteboards, projectors, computer equipment) for 150 thousand Eur, learning spaces, library premises, and recreation areas will be renovated for 200 thousand Eur (SER, p. 42).

Expert judgement. The priorities for upgrading teaching resources are refined by the Department based on the teaching staff and students' needs. The information provided in the SER and during the meetings allows to conclude that the study programme management follows good practises of resource management and supervision. However, there are limited internal resources or equipment and laboratories within the Faculty of Health Sciences. For example, Biomedical Diagnostics is taught at the Agrotechnologies laboratory, and the subject of Biomedical Physics is studied in the Physics Laboratory of the Faculty of Electronics and Informatics.

Both Medical Technology study programmes require high level of technological base for students' training in order to follow the high standards of patient safety in heavily technology driven healthcare segments of radiology and biomedical diagnostics. Therefore, even though existing management practises in resources' upgrade and investments are good, it would be advisable to search for additional financing sources to overcome current limitations in resources and sustain long term competitiveness in the higher education provision for radiology and biomedical diagnostics.

Strengths and weaknesses of this evaluation area:

(1) Strengths:

1. Extensive network of partnerships to provide students with access to equipment and on-site training.

(2) Weaknesses:

1. Due to limited internal resources or equipment and laboratories within the faculty of health sciences there is a reduced flexibility in study programme planning and additional risks of study quality management. It does not show sufficient dedication of the management for the medical technologies' programmes when Biomedical Diagnostics is taught at the Agrotechnologies laboratory, and the subject of Biomedical Physics is studied in the Physics Laboratory of the Faculty of Electronics and Informatics.
2. Lack of specific software use for studies limits students' competencies in digital technologies in the fields of studies.
3. Introduction of safety practice and theory, as well as development of some practical clinical work skills with patients for the Radiology programme, would benefit the future students of the programme.
4. Student accommodation facilities do not provide sufficient privacy and comfort, which may have a negative impact on students' overall wellbeing. Investment plans indicate commitment to strengthen the quality of medical technology field study programmes in the future.

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

Factual situation. There are two committees for each study programme (SER, p. 43) responsible for the programme implementation and quality assurance. These committees utilise various processes, procedures of internal quality assurance, e.g., evaluate the conformity of the study subjects, analyse the feedback received from the students about the content, organisation, and evaluation of studies as well as their expectations, analyse trends of specialists in the labour market, maintain relations with the social partners/stakeholders and take care about their involvement in the activities of the study programmes. As it is presented in the SER (p. 44), the study programme committee meets at least once a year (usually at the beginning of the spring semester). In addition, implementation, improvement of the study programme and the quality assurance is coordinated by the chairman of the committee.

Expert judgement. Overall, based on experts' opinion, suitability and adequacy of an internal quality assurance system contributes to improved teaching and learning, and helps disseminate best practices with the goal of leading to overall improvement of higher education in VIKO. Meanwhile, the management and decision-making, periodicity of internal evaluation are sufficient and provide adequate information about the means used for study process quality assurance.

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

Factual situation. Social stakeholders have an important role in internal quality assurance. Based on the information given in the SER (p. 27), a student representative participates in the activities of the study programme committee. Information about the study programme is provided in the Academic Information System, and all students have access to it. Social stakeholders may also submit their proposals and comments individually to the Head of the Department, the Vice-Dean, the Dean, and the Student Representation. As is stated above (in 3.7.1.), an important input by stakeholders is that they provide comments and suggestions from organisations representing the profession.

Expert judgement. Information from virtual online site visit also confirms that the overall involvement of stakeholders in internal quality assurance is suitable and adequate. Furthemore, social networks publish the views of stakeholders on studies in the field of Medical Technology, career opportunities, and individual success stories.

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

Factual situation. VIKO's website provides concise information and comparatively easy navigation for information on the study programme and studies in general. It presents information on the structure of study programmes, career opportunities, Erasmus+ programs that are held at the beginning of each semester.

The website https://en.viko.lt/ is linked to the official VIKO's accounts on Facebook, Linkedin, Instagram and Youtube. The website provides information about international partnerships and programs. However, the information is provided in a list form, without explanatory details of the type or purpose of partnerships or projects, which would potentially increase the value of the information provided to existing and potential students.

Expert judgement. It should be mentioned that both study programmes (Biomedical Diagnostics & Radiology) have almost no visibility in English language (only brief information) and on social media. VIKO could apply proactive social media communication on such channels as Youtube, etc. Given VIKO's general focus on developing close contacts with businesses, which is explicitly shown on their website, and their dedicated focus on providing facilities for startups development, etc., the College should utilise the opportunities by taking proactive role in communication and develop targeted communication strategy and plan, to be followed and implemented as part of the study quality management system and target students from developed countries in the EU and worldwide.

The website description of the Biomedical Diagnostics programme would also benefit from revision as it sounds more like a description of the social sciences' programme rather than providing specific scientific knowledge and competencies. The website description of the

Radiology programme looks more focused and technical, which gives more credibility for prospective students.

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

Factual situation. As it is presented in the SER (p. 13), Medical Technology study field study programme committees at least once a year hold meetings to review the results of surveys of students, graduates, practice supervisors, and employers, and decide whether changes are needed in learning outcomes, study plan, and subject content. The surveys respect the principles of volunteering and anonymity, transparency and efficiency. On the other hand, students express their opinion each semester. The summarised results of the surveys are published on the website of VIKO, at the meetings of the Faculty Council and the Department (SER, p. 45).

Expert judgement. VIKO uses multiple surveys for the students, graduates, practice supervisors, etc. to assess their opinion and feedback. Information from experts' virtual visit also confirms that students express satisfaction with their studies and the teaching staff.

Strengths and weaknesses of this evaluation area:

(1) Strengths:

1. Systematic and timely monitoring of the quality of the Medical Technology study field programmes, which is followed by VIKO's internal study quality assurance procedure.
2. Active involvement of student representative in the activities of the study programme committee.

(2) Weaknesses:

1. The information about both study programmes should be better publicised by developing an effective plan that includes the English language.

IV. RECOMMENDATIONS

Evaluation Area	Recommendations for the Evaluation Area (study cycle)
Intended and achieved learning outcomes and curriculum	Harmonisation of learning outcomes between the two study programmes is recommended. For example, learning outcome "Select learning strategies and methods" for the Radiology programme is assigned to the competence "Abilities to Conduct Research", while for the Biomedical diagnostic programme the same learning outcome is assigned to the competence of "Personal Abilities". Learning outcomes should be expressed in terms of what the students are able to do after graduation. It is recommended to broaden the practical skill set by providing courses on catheter entering, practising injections or similar skills.
Links between science (art) and studies	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, and incorporating this into the study programmes would be a significant upgrade.
Student admission and support	The students are taking advantage of mobility opportunities; however, the information about the participation of incoming or outgoing students in mobility programs should receive more visibility, aiming to attract more students. The advertisement of medical technology field studies for foreign students should also be improved. Consider more opportunities of combining a study period abroad with a traineeship, further enhancing the learning outcomes and development of transversal skills.
Teaching and learning, student performance and graduate employment	Teaching materials should be enhanced with special programs for radiology in order to improve the development of competencies for clinical safety and nursing/practical skills. Biomedical diagnostics study programme should enhance its materials and direct training focusing more on practical skills development in the field of bioinformatics, thus supporting the future competitiveness of graduates. The effective improvements to digital technology that encourage

	active learning, knowledge construction, inquiry, and exploration on the learning outcomes should be included.
Teaching staff	The funds for international academic mobility should be increased. Teaching staff would benefit from the lecturers addressing recent developments in healthcare management and the most recent and updated information and communication technology should be included into the study programmes.
Learning facilities and resources	Improvement of internal resources of equipment and laboratories within the faculty of health sciences is recommended. Acquire specific software that would allow to develop competences in digital technologies in programme related studies. Invest in student accommodation facilities improvement and modernisation. Include the introduction of safety practice and theory and development of some practical clinical work skills with patients for the Radiology programme. Implement the investment plans that indicate commitment to strengthen the quality of medical technology field study programmes in the future.
Study quality management and public information	The information about both Medical Technology field study programmes should be better publicised by developing an effective plan that includes the English language. More public information about the field of study and success of the graduates would be beneficial for future growth.

V. SUMMARY

Intended and Achieved Learning Outcomes and Curriculum. Both study programmes in Medical Technology study field – Biomedical Diagnostics & Radiology – are aligned with the needs of society and the labour market, have close link to professional societies and social partners keeping the curriculum up-to-date and actual. Students of both programmes are provided with possibilities to individualize their studies.

Better harmonization of learning outcomes between two study programs is recommended and learning outcomes should be expressed in terms of what students are able to do after graduation, and their practical skill-set should broaden by providing courses on practical skills (catheter entering, practicing injections and etc.).

Links between Science (Art) and Studies. The science activities are in line with the objectives of the study programmes and are well established in national and international context. From the applied research point of view, these are well-established professional bachelor study programmes for laboratory and radiology professionals to fulfil healthcare providers' demands.

The content of studies is well aligned with the latest scientific and technical developments in medical technologies, faculty members are participating actively in the research, are involved in the international research community and students also participate in the applied research. However, most recent trends in the medical technology research field also include components of information and communication technology, and this aspect could be addressed more broadly in the content of the studies, in particular by highlighting the benefits of artificial intelligence and data science.

Student Admission and Support. A significant number of students is admitted each year, and students take advantage of the academic, financial and psychological assistance. The procedures for the recognition of foreign qualifications, part-time studies and prior non-formal and informal learning are appropriate and students use this opportunity. Also, students are included in the composition of councils and they participate in decision-making (including academic changes). However, students from abroad are not very attracted to the field of medical technology studies and more attention should be given to the marketing. Overall, better publicity should be considered to ensure the growth in the number of students.

Teaching and Learning, Student Performance and Graduate Employment. In the teaching and learning process VIKO takes into account the needs of the students and enables them to achieve the intended learning outcomes. However, some advancement in technical skills development and availability of suitable software programs for students' training is recommended. Radiology study programme's teaching materials should be enhanced with special programs for radiology to enhance competencies in clinical safety and nursing skills. Study programme Biomedical diagnostics could be enhanced with materials and training focus on practical skills development in the field of bioinformatics seeking to enhance the competitiveness of future graduates in the labour market.

Teaching Staff. Lecturers of the Medical Technology field studies have very appropriate knowledge and skills to teach laboratory and diagnostic imaging professionals on the professional bachelor level. The asset is that faculty consists of lecturers that have both strong theoretical and practical experience. However, there is a limited international academic mobility due to low funding that should get more attention. Also, teaching staff would benefit from the lecturers addressing recent developments of healthcare management and information on communication technology.

Learning Facilities and Resources. The suitability and adequacy of the physical, informational and financial resources of the field studies is sufficient and ensures an effective learning process. Extensive network of partnerships provides students with access to equipment and on-site training. However, as the majority of important technical training is organized outside the College facilities, it indicates significant limitations for the study programmes to function autonomously. More specific software usage for studies would help to upgrade students' competencies in digital technologies in their fields of studies.

The online information about the physical culture and sports center of VIKO leaves a good impression that sufficient care is given regarding physical and mental wellbeing of the students.

Study Quality Management and Public Information. There is a systematic and timely monitoring of the quality of the Medical Technology study field programmes, which is followed by the internal study quality assurance procedure. Sufficient policies are in place to ensure that the learning outcomes of the study programmes are achieved.

Some digitalized methods for quality of teaching and learning outcomes monitoring would be recommended. More public information about the field of study and success of the graduates would be beneficial for future growth.

Expert panel chairperson signature:

Prof. Dr. Dalia Giedrimienė