CENTRE FOR QUALITY ASSESSMENT IN HIGHER EDUCATION

EVALUATION REPORT
STUDY FIELD of MEDICAL TECHNOLOGY
at Šv. Ignaco Lojolos kolegija

Expert panel:

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2. **Prof. Dr. Janis Spigulis,** *academic;*
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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

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Study Field Data

Title of the study programme	**Orthopaedic Technology**	**Emergency Medical Aid**
State code	6531GX009	6531GX010
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	Professional Bachelor in Health Sciences
Language of instruction	Lithuanian	Lithuanian
Minimum education required	Secondary education	Secondary education
Registration date of the study programme	2011	2015

CONTENTS

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 *3 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;*
Prof. Dr. Janis Spigulis, *Professor of Laser Physics and Spectroscopy, Faculty of Physics, Mathematics and Optometry, and the Head of Biophotonics Laboratory of the Institute of Atomic Physics and Spectroscopy, University of Latvia, Latvia;*
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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 (hereinafter – SER) and annexes, the following additional documents have been provided by the HEI before the site visit:

No.	Name of the document
1.	Applied research activities at Šv. Ignaco Lojolos kolegija in the period 2019-2021
2.	Study programmes "Orthopaedic Technology" and "Emergency Medical Aid" course syllabi
3.	Examples of various types of feedback surveys (in Lithuanian)
4.	Emergency Medical Aid (SPM 18) 2020 autumn semester courses quality - survey results (in Lithuanian)

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

Šv. Ignaco Lojolos kolegija (hereinafter – ILK) carries out studies in the fields of Medical Technology, Cosmetology, Social Work, Tourism and Recreation, Design, and Food Technology. Within the field of Medical Technology Šv. Ignaco Lojolos kolegija implements 2 study programmes – Orthopaedic Technology (hereafter – OT) since 2011 and Emergency Medical Aid (hereafter – SMP) since 2015 – both administered and managed by the Department of Health Sciences and Technology.

Medical Technology field studies form a significant part of studies offered at Šv. Ignaco Lojolos kolegija. As of October 2020, there are in total 366 students studying here, out of which 88 belong to Medical Technology field programmes (61 in Emergency Medical Aid and 27 in Orthopaedic Technology).

As a Catholic HEI in Lithuania it carries a goal to prepare the specialists of high qualification to satisfy the requirements of the current labour market and to be able to work in the society by complying with the Christian values.

Both, OT and EMA study programs, contribute to the Lithuanian system of higher education and research as the emergency paramedics and orthopaedic technologists are prepared within the context of professional and community spirit's development.

These two programs attributed to the study field of Medical Technology G09 are preparing students for a Professional Bachelor's Degree in Health Sciences, which meets the European standards and competencies necessary for further professional career.

II. GENERAL ASSESSMENT

Medical Technology study field and *first cycle* at Šv. Ignaco Lojolos 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	3
2.	Links between science (art) and studies	2
3.	Student admission and support	4
4.	Teaching and learning, student performance and graduate employment	3
5.	Teaching staff	3
6.	Learning facilities and resources	4
7.	Study quality management and public information	3
	Total:	**22**

*1 (unsatisfactory) - there are essential shortcomings that must be eliminated.
2 (satisfactory) - meets the established minimum requirements, needs improvement.
3 (good) - the field is being developed systematically, has distinctive features.
4 (very good) - the field is evaluated very well in the national and international context, without any deficiencies.
5 (excellent) - the field is exceptionally good in the national and international context (environment).

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. In the Medical Technology study field, ILK is delivering two study programs - Orthopaedic Technology (OT) and Emergency Medical Aid (SMP), both are programs of the first cycle of studies. Both programs are closely related to medicine and personal health care.

The OT study programme is intended to train the technologists who would be able to organise the process of provision of orthopaedic technical means, while SMP study programme is preparing a specialist capable of evaluating the state of the patients of various age groups in case of acute clinical states or injuries.

Specialists from both study programmes are needed in the Lithuanian and European labour market, as indicated in SER that "all graduates <...> are employed according to their specialties" and some find jobs abroad. Upon completion of the studies, graduates are ready for professional activities.

The aims and learning outcomes are defined in terms of both the academic content and professional requirements for Professional Bachelor's level studies.

Similar to the SMP programme, paramedics are being prepared in Karalius Mindaugas Vocational Training Centre and Zarasai Professional School (according to the Lithuanian Association of Paramedics www.paramedikas.lt/studijos). Similarly, paramedics are being prepared at Vilnius Service Business Vocational Training Centre, Panevėžys Labour Market Training Centre (http://paneveziodrmc.lt/paramedikas). However, as the SMP program it is delivered only at ILK.

Expert judgement. Aims and learning outcomes of OT and SMP study programmes conform with the needs of Lithuania, Europe and World labour market, while OT program as such is delivered in Lithuania only at *Šv. Ignaco Lojolos kolegija*.

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 OT programme is to provide higher college education in the field of medical technology which meets the European standards and competencies that are necessary for further professional career as an orthopaedic technologist. The main objective of the OT programme is elaborated by 5 aims (SER, p. 12) and they're in sync with the mission of ILK to develop the skills and Christian values needed for successful professional work (design, manufacture, apply and correct orthopaedic technical aids, train creative and critical thinking etc.).

The aim of SMP programme is to provide higher college education in the field of medical technology which meets the European standards by preparing specialist capable of providing the first and the necessary emergency medical aid independently or with a medical team to persons of different ages, depending on the nature of injuries suffered and the degree of disorder of vital functions as well as of transporting patients and accident victims to medical facilities to ensure the necessary support of vital functions. SMP programme also integrates Christian values into the study program, and Christian values are the core of the whole pedagogical St. Ignatius paradigm to foster a community spirit, values of teachers and students.

Expert judgement. The first cycle OT and SMP study programmes are in compliance with the vision and mission of ILK.

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

Factual situation. The volumes of both study programmes (OT and SMP) delivered at the institution in the Medical Technology study field is 180 credits with 30 credits per semester (total 6 semesters). For both programmes, 156 credits are used to accomplish the study results of the study field, 15 credits for general college education subjects, 30 credits for practical training and 9 credits for final work. 100% of teaching staff hold master degrees in the field they teach and 28% of teaching staff hold doctoral degrees, and all teaching staff have more than 3 years practical experience in the field.

Expert judgement. The first cycle OT and SMP study programmes 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. The aims and learning outcomes of the OT and SMP study programmes are expressed in five categories: Knowledge and their application, Ability to conduct research, Special skills, Social skills and Personal skills. In the OT programme each competence category consists of 4 to 5 learning outcomes, while in the SMP programme there are 2 learning outcomes per category.

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). Teaching staff is composed of practising professionals and therefore, the teaching process involves imitations of real world scenarios, monitoring of students' performance and each student is required to complete practical assignments until passed for acceptant level. Assessment is also based on a mixture of reports, presentations and examinations which is appropriate.

Expert judgement. The learning outcomes are compatible with the aims and learning outcomes of the study field and professional bachelor qualification degree.

Learning outcome promoting life-long learning is missing in the SMP program, and therefore it could be embedded in the personal skills competence category.

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. The order of the study subjects in the OT and SPM programmes is logical, starting with general courses of collegial studies in first semester and in second semester core and compulsory courses are being introduced, necessary for student to develop basic knowledge and cognitive skills in mathematics, anatomy-physiology, professional ethics and information technologies, as well as in specific subjects - e.g. materials of orthopaedic products for OT students and electrocardiography and pathology for SPM students. In the second year and penultimate semester, core and compulsory courses are provided, while the last semester is devoted mainly for professional practice and final work. Subjects are taught in a logical sequence to enable the competences to be developed in a gradual manner, also providing the necessary knowledge and skills for the final work.

However, a course related to the medical equipment for the SMP programme could be included (expanding IT and ECG courses related to Medical Technologies) in the future. A separate course related to active prosthetics and bionics principles could be added in the OT programme to better reflect tendencies in the future with the advancement of prosthetic technologies.

Expert judgement. Overall, the totality and sequence of study subjects, including internships and final work enable students to develop the competencies required for a professional bachelor graduate of the field and cycle of studies.

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. Students have the opportunities to personalise the structure of their study programme if they have special needs that they can prove with formal documents according to the internal ILK procedure (SER, p. 20, and descriptor of procedure of the personalised curriculum available online on ILK website at: https://www.ilk.lt/wp-content/uploads/V-51PRIED-1.pdf). According to College's Studies order (https://www.ilk.lt/wp-content/uploads/V-01-pried_studiju-tvarka-3.pdf), students can individualise their study plan not only if they have special needs but due to other unidentified reasons as well (with the approval of the director of the College).

Other personalisation possibilities are expressed in terms of alternative and freely selected subjects or the list of additional subjects. The plans of OT and SPM programmes do not provide credits for freely selected subjects, but there are 3 modules in each programme provided as established by the ILK and are mandatory. Therefore, there are limited possibilities for students to personalise their studies.

Expert judgement. There are limited possibilities for students to personalise their studies. They can choose subjects from the list provided by the College (SER, Annex 2, Study plan part III), but no credits are provided in the study programme for freely elective modules – choosing study modules not from the OT or SMP programmes but from other programmes provided by the College or even from other higher education institutions.

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

Factual situation. The final work projects are regulated by a Descriptor of Preparation and Defence Procedure of the Final Theses (Projects) (SER, p. 20).

In the case of the OT programme, the final work consists of two parts - the practical part, where students have to manufacture certain orthopaedic devices, and the descriptive part. The contents of final works are closely related to the potential workplace of the graduate, also are related to the solution of a particular problem and application of research competencies and skills.

In the case of the SMP programme, the final work is more descriptive, related to the goal of the programme and its contents, and the application of research competences is visible.

Students are provided with the topic of final work or they can propose their own.

Expert judgement. Overall, the topics of the final works of OT and SMP programs are relevant to the Medical Technology field and reflect the aims and learning outcomes of study programmes.

Strengths and weaknesses of this evaluation area:

(1) Strengths:

1. Christian values are the core of the whole pedagogical St. Ignatius paradigm to foster a community spirit, values of teachers and students and these values are embedded in the design of both study programs – OT and SMP. OT programme is the only one provided in Lithuania.
2. The curriculum design of both study programmes in the Medical Technology field is focused on providing very good professional education, and prepares the graduates for practical work in their chosen field (OT or SMP), corresponding to the needs of the labour market and closely related to the industry. Overall, the totality and sequence of study subjects, including internships and final work, enable students to develop the competencies required for a professional bachelor graduate of the field and cycle of studies.

(2) Weaknesses:

1. The list of learning outcomes for both OT and SMP programs could be shortened, to have 3-5 learning outcomes per competence category.
2. Learning outcomes promoting life-long learning could be more clearly defined in the SMP programme (in the personal skills competence category).
3. Limited possibilities for students to personalise their studies - no credits are provided in the study programme for freely elective modules.
4. A course related to the medical equipment could be included in the SMP programme (expanding Information Technologies and Electrocardiography courses) in the future. A separate course related to active prosthetics and bionics principles could be added in

the OT programme to better reflect tendencies in the future with the advancement of prosthetic technologies.

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. Majority of the teachers are professional practicians who do not conduct any research activities. Several part-time teaching staff members carry out research in their home universities (e.g. Kaunas University of Technology, Lithuanian University of Health Sciences); their international publications are mainly on topics not directly related to Medical Technologies (Annex 4 of SER). Only two papers (a 1-page conference abstract and a 10-page conference proceeding paper) related to research done by ILK teachers on the study field topics were published over the reporting period, without any journal publications. As there are no own research facilities at the ILK, laboratories and equipment of partner institutions are used if any specific measurements or applications are needed. Some equipment exploitable for applied research has been purchased, e.g. high-performance laser 3D-scanner for design of orthopaedic articles and artificial chest pressure machine. Still, during the online visit, administration did not express intention to develop local infrastructure for applied research in the future.

Expert judgement. Applied research on medical technologies in the ILK is fairly undeveloped, there are no own research facilities, allocated research funding and serious plans of administration to improve the situation. Thus it is unclear how a strategic goal "students together with their final work's supervisors should participate at least in one scientific conference and to present research report or publication" (p. 31 of SER) could be achieved. To conclude, the applied science activities implemented by the ILK for the field of research related to the field of medical technologies seem to be insufficient.

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

Factual situation. This part of the SER is described very generally, without concrete examples how the latest developments in healthcare technologies are reflected in the study course contents. The scientific novelties are introduced to students at special seminars and by attending exhibitions, e.g. "Life Sciences in the Baltic States" in 2019. Moreover, to follow the latest trends and global developments in the study field, more advanced English knowledge of students is expected (during the onsite meeting, most of the participating students needed translator's assistance).

Expert judgement. Good link between the content of study courses and the latest developments in science and technology has not been convincingly demonstrated in the SER and during the online meetings.

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

Factual situation. Students are encouraged to do research at facilities of collaboration partners for practical works and to collect the research data for final theses. Research achievements are implemented in the course of practical training, using advanced commercial technologies. Students were involved (surveyed) in a study not directly related to Medical Technologies – how the Covid pandemic affects emotional health. New technological approaches, e.g. for scar treatment using elastomers, have been reviewed and developed in the final projects of students (Annex 3 of SER). However, the possibilities to do applied research in MT are limited as there are no research facilities at the ILK and most of the teaching staff are not involved in research related to the study field.

Expert judgement. Based on collaboration with partners the students are encouraged to perform research at their work facilities. ILK has no research facilities, therefore most of the teaching staff are not involved in research related to the study field.

It is recommended that the conditions for students to get involved in applied science activities related to Medical Technologies should be essentially improved.

Strengths and weaknesses of this evaluation area:

(1) Strengths:

1. Some of the part-time teachers perform high-quality research on topics not directly related to Medical Technologies at their home institutions and publish papers in respected international journals. They can be good advisors for colleagues wishing to do research and publish results on Medical Technology-related topics.

(2) Weaknesses:

1. No systemic applied research on Medical Technologies is carried out at the premises of ILK and no development of appropriate infrastructure (e.g. laboratories, equipment) is planned in the future. Relying only on the partner's research facilities limits involvement of teachers and students in the study field related research activities and the ability to integrate the latest research findings in the content of study courses.
2. As a consequence, very little research on topics of the study field has been done over the reporting period and no journal papers on research results published (only two conference papers reported). It seems insufficient for the University of Applied Sciences and this area needs improvement in the future.

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. Admission of students to OT and SMP programmes is carried out through a competition through the Institutional Admission organized by LAMA BPO and the ILK. More information on admission processes is available on the USA's website, in leaflets, also special promotional leaflets, it is also spread during meetings with students, by using study exhibitions, at fairs and during open days. When admitting students to the field of medical technology, the ILK applies a minimum competitive score, which is applied when entering the ILK study programs in the state-funded, non-state-funded scholarship and non-state-funded places. The entrant's competitive score includes points and additional criteria earned by the entrant.

Expert judgement. The selection and admission criteria for students are appropriate for the study programmes, and it is noticeable that both study programmes attract students. The study programme and the admission process related information is presented in a variety of ways and available for applicants.

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. For persons wishing to assess the achievements acquired through non-formal and informal learning, the study results are credited according to the Description of the Procedure for the Assessment and Recognition of Competences Acquired in the Non-Formal Adult Education System. Credits of study subjects of the main study field, the competencies of which have been formed more than 5 years ago, are not included. Credits for the recognition of foreign qualifications, part-time studies and previous non-formal and informal learning are credited in accordance with the requirements of the Minister of Health in Lithuania.

Expert judgement. Procedures for the recognition and application of prior non-formal and informal learning are appropriate. The ILK receives the necessary evidence of the acquired competencies.

3.3.3. Evaluation of conditions for ensuring academic mobility of students

Factual situation. The teachers and students can participate in the Erasmus+ mobility program. International student mobility is also at least partially funded/refinanced by the ILK, if international activities take place outside the European Union. ILK participates in international competitions and contests. All information about the Erasmus+ mobility program is available on the ILK website, is spread on social networks and by student email. ILK has short-term international visits for its students going abroad every year. ILK also invites many lecturers from other countries for 1-2 weeks.

Expert judgement. ILK provides students with information on the ERASMUS+ mobility program through various channels. Erasmus+ seminars-information events are organized.

Students are provided with suitable conditions to go abroad. Although ILK students have short-term visits to foreign countries each year, a plan should be devised to further encourage students to take advantage of Erasmus+. Starting to develop some courses in English would be recommended within Lithuanian-taught programme which may help to attract international students and teachers.

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 are provided with academic, financial, social, psychological and personal support. ILK is very supportive and helps with student accommodation and provides facilities for students to spend their free time. ILK also has an open-access system running which means that students can use infrastructure and equipment in any other faculty for their study purposes.

Expert judgement. Sufficient academic, financial, social, and psychological assistance is provided to students, but much more publicity should be given on the website or in other places where and in what form this support is available to students and how to take advantage of these opportunities.

3.3.5 Evaluation of the sufficiency of study information and student counselling

Factual situation. First-year students are introduced to the study process, opportunities to study abroad under the Erasmus+ program, the benefits of student representation, information about library resources, study equipment and other necessary information. ILK appoints a curator of the study programme to help students integrate into the academic community. Students can and are encouraged to participate independently in trainings and seminars organized by the ILK or other institutions. Students have access to electronic scientific databases and scientific journal databases. In order to provide students with timely information about their studies, they receive personal emails.

Expert judgement. Although students may turn to a tutor for lack of information, it would be good to have a career counsellor available to offer to the student more information about future career and possible job opportunities.

Strengths and weaknesses of this evaluation area:

(1) Strengths:

1. The number of students willing to study in OT and SMP study programmes tends to grow.
2. There is a good and open-access system running which lets students use infrastructure and equipment in any other faculty for their study purposes.
3. The mobility of students studying in the evaluated field of study is promoted by actively participating in various professional competitions and games not only in Lithuania, but also abroad.

(2) Weaknesses:

1. Starting to develop some courses in English would be recommended within Lithuanian-taught programme which may help to attract international students and teachers.
2. Academic, social, financial and psychological support should be better presented/publicised on the ILK website and the use of social networks could be more explored to make the information more accessible to students.

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. Teaching staff assists students to comprehend the importance of information and what they will gain from their commitment based on the learning activity. Most of the teaching activities are using clear communication, problem-solving skills, and values.

Furthermore, teaching staff encourages the students and communicates with them through the lectures, tutorials and laboratory activities in order to achieve learning goals. It is presented in a way that students can understand the content and are able to apply. In addition, each student participates actively in the learning process and receives timely feedback regarding the progress.

Expert judgement. The obtained information from SER and information received during site visit show that the learning process takes into account the students' needs and enables students to achieve learning outcomes. However, the program should ensure the progressive growth for investigation by implementing more practical science-based activities as they can have a huge impact on the quality improvement of the learning process.

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

Factual situation. Based on the information given in the SER, the students with special needs may study according to individual curriculum (as it is governed by the Descriptor of Presentation of the Personalized Curriculum approved by the Director of ILK on 06 May 2019.

ILK also uses a policy to exempt registration fees for the socially vulnerable groups. In case of limited mobility, the support can be individualized during discussions with students, and mixed mobility (physical and virtual) may be used.

Expert judgement. The information from the virtual site visit has confirmed that limited policies at ILK are in place in order to support socially vulnerable groups or persons with disabilities.

Students with disabilities can receive individualized support. In general, ILK shall ensure the implementation of the Equal Opportunities and Diversity Policy.

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. The information given in the SER (p. 46) shows that on the level of each field study programme, there is a monitoring system of students' progress as the students are using special system My ILK ("Unimetis" study administration system), where they can see their grades and receive the messages addressed to them.

ILK provides the monitoring of student study progress consisting of the survey on quality of the subject/module and the success of studies. Therefore, student study progress is assessed by giving feedback and necessary advice/consultation, which helps to promote the awareness of students about their progress and their self-assessment.

The Description of learning outcomes' assessment procedure is in place (presented in SER, p. 45).

Expert judgement. There is limited information about the indicators of the progress of students, repeated examinations, the evaluation of the effectiveness of newly introduced measures for the quality of studies. Overall, based on information obtained during virtual site visit and discussions, there is a need for a more systematic approach to monitoring of the quality of studies and the progress of the students' in their studies. Furthermore, monitoring should be put in place to ensure the plan remains relevant.

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

Factual situation. Based on information given in the SER, there is support, resources, and assistance provided for the graduates to help with their employment. Also, the partner companies play a key role for the graduates, as this was presented to us during a virtual site visit.

As it is stated in the SER (p.47), ILK established the Alumni Club on 30 Dec 2020 which has two graduates only registered at this time. Typically, the main purpose of an alumni club or association is to support a network of former graduates who will, in turn, help to raise the profile of ILK.

In fact, as presented in the SER ("*Table 10. Employment of the graduates 12 months after the graduation*", p. 47), there is only a limited number of graduates registered in the Employment Service under the Ministry of Social Security and Labour of the Republic of Lithuania during the period 2018-2020.

Expert judgement. During the experts site visit it was presented by graduates that they are satisfied with knowledge they have obtained and the program has ensured high employability (but only in a local market). Former students have confirmed that they don't feel a lack of competencies or skills. Meanwhile, as technology is advancing very fast, in order to keep up with the pace, there is a need to regularly update knowledge and skills in each of the study programmes. So far, there is no continuing education in the planning.

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

Factual situation. Based on SER (p. 48), there are a variety of regulations/policies to ensure academic integrity, tolerance and non-discrimination, including the description of professional ethics of the academic community and general human behaviour, which is provided in the Code of Academic Ethics. Each new student at ILK signs a declaration of academic integrity that is valid during all duration of studies.

As it is presented in the SER and discussed during site visit, one inquiry regarding violation of academic ethics in the study field of Medical Technology was examined during the last three years. It was recognised that the student had violated the academic ethics, and the strict warning was imposed.

Expert judgement. A variety of regulations and policies to ensure academic integrity, tolerance and non-discrimination, including the description of professional ethics, are present. However, there is a need to further improve the assurance of relevant policies and engage students more in the monitoring process.

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. Based on information provided in SER (p. 48), ILK applies the "Descriptor of Examination Procedure of the Appeals of Students of the University of Applied Sciences" approved by the Director of ILK. This document establishes the procedure how the appeals are accepted and examined, how they are answered, and how the decisions regarding positively assessed appeals are implemented.

Expert judgement. Field study programmes have necessary policies in place to ensure appeals and complaints. No appeals or complaints of the students have been filed recently.

Strengths and weaknesses of this evaluation area:

(1) Strengths:

1. Both programs deliver sufficient level and quality of practical training to ensure high level of students' employability.

(2) Weaknesses:

1. The limited usage of instructional approach that allows students to explore, discuss, and meaningfully construct concepts and relationships in contexts that involve real-case studies, problems and projects that are relevant to the learner requires more attention in planning.
2. ILK should create a support system which would help academic staff and students to feel safe, accepted and integrated into the community, and to be able to realise their potential and also to value diversity.
3. More attractive collaborations with professional organisations, partners from abroad should be beneficial for practical & professional skills, experience related to the subject being taught.

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 number of teaching staff is not clearly specified. According to Table 13 of SER, there were 34 teaching staff members in 2020. During the online meeting, SER group referred to a total number of 45, 33 of which are MT subject teachers. In p. 51 of SER it is stated that 7 teachers or 28% are with doctoral degrees, which results in a total number of 25; 25 teaching staff members are also listed in Annex 4 of SER, so this number can be taken as the reference. 17 of them are co-authors of scientific publications or conference reports while the other 8 are practitioners, mainly medical doctors. Total number of students in both study field programmes was 88 in October, 2020 (Table 13), or ~3.5 students per one teacher. Following the table in Annex 4, only one teacher is working full time (FTE=1.0), all other teachers are employed part-time with FTE ranging from 0.8 to 0.01. Majority of the teachers are professional practicians who present lectures on part-time contract basis; research activities are not contracted. The workload of teachers is distributed quite unevenly - as example, one teacher (0.8 FTE) as the "cornerstone" of the OT programme teaches 14 subjects/modules and supervises most of the graduation projects (Annex 3); as explained during the onsite visit, the above mentioned teacher has one more part-time job. Another teacher with a similar workload (0.75 FTE) is teaching only one subject (Health law). As explained at the online meeting, this FTE includes also other duties, part of them administrative. Annex 5 of SER shows that the teachers have had a number of professional training events - however, without exact data when/where the event took place.

Expert judgement. The number, qualification and competence of the teaching staff appears to be adequate. However, their workload could be distributed more evenly as more than ten courses delivered by one teacher bears a risk for the whole programme in the case of some health problems or other unpredicted situations. Besides, nearly all teachers work part-time and many of them are not involved in research activities. Separation of teaching duties from other administrative/management/etc. duties is recommended.

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

Factual situation. The teachers are encouraged to actively use the Erasmus+ capacities during the informational events and by e-mails. Mobility of teaching staff took place in the frame of Erasmus+ KA103 project; 10 foreign visits of teachers are specified in Table 14 of SER, along with 4 incoming visits of international partners. The field teachers may choose five foreign higher education and research institutions within Erasmus Charter for their teaching and learning visits.

Expert judgement. The teaching staff academic mobility is encouraged and supported.

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

Factual situation. The teachers are encouraged to take part in the professional development seminars as those listed in Annex 5 of SER. The teachers are taught free of charge when courses are organised by the University of Applied Sciences; if the seminars are paid, the teachers may apply for financial support. For instance, teachers are actively participating in the seminars organised by the Lithuanian and Swiss company "Hospitex Diagnostics" about the latest emergency medical technologies. However, no information on raising the didactic competences of the teaching staff could be found in SER.

Expert judgement. The professional/technology competences of the teaching staff are regularly improved while the didactic competences should be raised, too.

Strengths and weaknesses of this evaluation area:

(1) Strengths:

1. The majority of teachers are experienced professionals in their fields, 17 out of 25 are co-authors of scientific publications or conference reports, 7 of them hold doctoral degrees.
2. Professional development of teaching staff is facilitated by regular seminars which are well attended.

(2) Weaknesses:

1. There is only one full-time teacher, all others teach part-time based on individual contracts where only teaching and organisational activities are included.
2. The workload of teachers is distributed unevenly, one OT teacher delivers more than ten subjects while most of the others only one. Such distribution of duties is risky for the whole programme if some unexpected emergency situation occurs.
3. No measures for raising didactic competences of the teaching staff were taken.

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. Based on the information given in the SER (p. 55), the core course lectures are given to students of other study programmes studying the same subjects in two large lecture halls. The workshops and seminars are often conducted in small lecture halls intended for work with one academic group. The laboratory works and practical tasks are performed in specialised laboratories. The studies are conducted in the premises with all the necessary hardware (computers with internet access, projectors, audio and video equipment). Other

hardware is supplied when it is needed for organisation of certain study subjects and adjustment of appropriate study methods (teaching stands, models and other visual aids).

There are 20 laptops for the visitors to use in the library of ILK for individual work (SER, p. 55).

The students may perform the first medical aid actions in the SMP simulation classes. There are means to monitor vital functions of the patients (cardio monitor, pulsometer, blood pressure gauge, etc.), to transport (scoop and basket stretchers, spine fixing board, vacuum mattress, etc.), to immobilise (a set of neck immobilising splints, set of Kramer splints, vacuum mattress), means ensuring open airways and mannequin (head) to administer the airways, various moulages (injections to vein or muscles, bone needles, wounds, traumas, etc.), oxygen supply devices. When the resuscitation actions are taught, the mannequins are used that register correct and incorrect actions of the student, as well as defibrillator LIFEPACK 15, training automatic external defibrillator, simulator of heart rhythms, etc. Various posters and models are used for theoretical and practical classes. The following software is used in the study field of Medical Technology: AutoCAD 2018, CAD/CAM (computer-aided design and computer-aided manufacturing) system, ELINVISION, Foot 3D t Manual version 1.1 to scan the feet.

3 databases are subscribed: EBSCO Publishing, Emerald Management eJournals Collection and Taylor & Francis (SER, p. 56). The list of accessible databases is all available for students and teaching staff.

Expert judgement. The overall suitability and adequacy of the physical, informational and financial resources of the field studies to ensure an effective learning process is good. What needs to be improved is focus and facilities for physical and mental wellbeing of the students. While advocating the religious paradigm, ILK seems not to pay sufficient attention to the academic studies-work- life balance of students and staff.

Also, based on the interviews and thesis examples provided, there are concerns about insufficient analytical (data analysis) software resources for both study programmes to ensure students' high professional competencies in analytics (thesis are prepared using excel). Also, given that thesis preparation with patients' data involves sensitive personal data, students should be explicitly trained to comply with all personal data related regulations, as well as research and professional work ethics.

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

Factual situation. No specific information on updates or investments during the assessment period was provided, apart from continuous renewal of computers, software programs and library resources. Renewal of resources follow basic working practices: when the updates of information sources are planned, teachers coordinate the needs with the library, and they also analyse the flow of scientific publications and recommend what is to be acquired. The head of the department and coordinators of study programmes regularly discuss with teachers the need for investments into new printed or electronic documents relevant for studies (SER, p. 57).

Expert judgement. The current practice for materials renewal seems to satisfy the needs of both Medical Technology field study programmes. However, investments into wellbeing infrastructure development should be included into the planning.

Strengths and weaknesses of this evaluation area:

(1) Strengths:

1. Strong ties with the industries, which allow the students both to get good practical experience during the studies and high level of employability.
2. Technical base for student's training is offered at the laboratories and specialised classrooms.

(2) Weaknesses:

1. The university should develop a strategy for physical and mental wellbeing maintenance of their students, not only focus on technical aspects of professional training.

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. From the information given in the SER (pp. 59-60), it is noticeable that ILK has implemented internal quality assurance principles including standardisation of activities, assessment of decisions and others. The Committee of Study Programmes utilises various processes, procedures of internal quality assurance, e.g. it evaluates the conformity of the study subjects, analyses trends of specialists in the labour market, maintains relations with the stakeholders, and takes care about their involvement in the activities of the study programmes. The Academic Council is responsible for assurance of the quality of the field studies. It also processes the issues of the study field in the spring semester and makes decisions how to improve it (SER, p. 59).

Expert judgement. The internal quality assurance system of the studies is present in the University of Applied Sciences. The responsibilities in the management processes of the study programmes are distributed. However, a clear strategy for the responsibilities in the management processes of the study programmes is missing. Thus, the effectiveness of the quality assurance system is limited and better analysis of trends is missing.

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

Factual situation. The stakeholders have an important input for improving the quality of studies as they are familiar with the educational environment and practical training bases and they have representatives on the Council, on the Board and on the Committees. As stated in

the SER (p. 15), stakeholders have an opportunity to express their opinion during the meetings of the study programme's committee, during defence of final theses or directly during practical training of students.

The surveys for employers and graduates on the quality of studies are carried out twice per year (SER, p. 15). The feedback and suggestions regarding obtained skills and competencies are used to improve the quality of the programme by making a plan for the programme's updating and implementation of changes according to ECTS philosophy. The surveys for graduates are usually organised at least once in three years (SER, p. 46).

In both study programmes, the practical training, professional tasks and competencies are coordinated and implemented in cooperation with the stakeholders.

Expert judgement. The input of stakeholders for improving the quality of studies is mainly present through the representatives on the Council, on the Board and on the Committees.

While the cooperation with the representatives of business world is used to assess the trends in the labour market and to adjust the preparation of the specialists in the field of studies, more collaboration with European organisations would be useful to respond timely to the changing international labour trends.

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

Factual situation. ILK website is providing a variety of information related to admission requirements, acquired qualifications and employment possibilities. It also offers necessary info about counselling and guidance systems.

With regard to the study programmes, the updated information is published every year and is provided to prospective students during the annual fairs and visits. In addition, the website publishes information on study programmes curriculum, state-supported loans and career opportunities, including the feedback and rating of the study programme by previous students.

Expert judgement. The website of ILK provides concise information and is easy to navigate for information on the programme and study process in general. However, there is only limited information and not enough visibility on social media, such as Facebook, Youtube, Twitter, etc. Based on experts' opinion, it should be more done by developing a targeted communication strategy and marketing plan. More students could be attracted from the EU or other countries worldwide.

Also, ILK could promote specific topics of applied research, publications in the field, etc., to strengthen its scientific reputation.

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 stated in the SER (p. 18), students' opinion on study quality is collected mainly by using surveys. The students give feedback about the teaching and learning of the subjects at the end of each semester. These surveys show that the majority of students have a

positive opinion about the methods applied in the course during the study process, including the online delivery during the Covid-19 pandemic.

Expert judgement. ILK uses multiple surveys to collect information from current students, graduates, teachers and stakeholders and reacts accordingly to the feedback and suggestions. During the site visit, it was noticed that the majority of students have expressed their positive opinion and adequate satisfaction with their studies and obtained competencies. No critical remarks have been received from graduates during site meetings with experts.

No clear information was obtained by experts on how teachers receive feedback from students about their overall classroom performance and how it can be used to improve their professional studies.

Strengths and weaknesses of this evaluation area:

(1) Strengths:

1. The University organises a variety of activities, including the days of open doors, takes part in the professional guiding activities and fairs by involving students and stakeholders.
2. Multiple surveys are used by ILK to collect information from current students, graduates, teachers and stakeholders and to react to obtained feedback and suggestions to increase the quality of studies.
3. The positive opinion and adequate satisfaction regarding studies and obtained competencies is expressed by students.

(2) Weaknesses:

1. A clear strategy for the responsibilities in the management processes of the study programmes is missing and a better alignment of responsibilities would be beneficial.
2. The information about the study programmes and scientific/applied research should be significantly better publicised by developing an effective marketing plan.
3. The engagement with stakeholders should be continuous and systematic regarding the processes of the programme assessment and improvement.

IV. RECOMMENDATIONS

Evaluation Area	Recommendations for the Evaluation Area (study cycle)
Intended and achieved learning outcomes and curriculum	The list of learning outcomes for both OT and SMP programmes could be shortened, to have 3-5 learning outcomes per competence category. Learning outcome, promoting life-long learning could be more clearly defined in the SMP program in the personal skills competence category. It is recommended to expand the possibilities for students to personalise their studies by including in the OT and SMP programmes freely elective modules from other study programmes provided by the College or even from other higher education institutions. A course related to medical equipment could be included in the SMP programme (expanding IT and ECG courses) in the future. A separate course related to active prosthetics and bionics principles could be added in the OT programme to better reflect tendencies in the future with the advancement of prosthetic technologies.
Links between science (art) and studies	A plan for the medical technologies-related applied research, involving the teaching staff and students, should be elaborated and implemented. Students are to be encouraged to perform research (preferably at the facilities of University) and to use the collected research data for their final theses.
Student admission and support	The descriptions for recognition of foreign qualifications as well as for part-time studies should be developed. Starting to develop some courses in English would be recommended within Lithuanian-taught programme which may help to attract international students and teachers. The access to academic, social, financial and psychological support should be better publicised on the ILK website and social networks to make this information more accessible to students. Having a career counsellor would allow students to receive more information about future career opportunities.
Teaching and learning, student performance and graduate	A better training in academic research is recommended, which is necessary to encourage a further academic growth for the students.

employment	More interactions between students and more progress in the activities of the Alumni Club is suggested in order to expand graduate employment possibilities.
Teaching staff	The workload of teachers should be distributed more evenly, including the research tasks; separation of teaching duties from other administrative/management/etc. duties is recommended. Didactic competences of the teaching staff should be raised, e.g. by organising specialised training and seminars.
Learning facilities and resources	Additional resources and a better strategy for physical and mental wellbeing maintenance of the students should be implemented. The facilities of the university do not fully meet the needs of disabled people because it is located in the historic building and should be improved.
Study quality management and public information	The information about the study programmes as well as the performed scientific/applied research should be significantly better publicised by developing an effective marketing plan. The engagement with stakeholders should be continuous and systematic regarding the processes of the programme assessment and improvement and also based on the needs and trends in the labour market.

VI. SUMMARY

- Intended and Achieved Learning Outcomes and Curriculum

The core of the pedagogical St. Ignatius paradigm is based on Christian values to foster a community spirit, and these values are incorporated into both study programmes (Orthopaedic Technology and Emergency Medical Aid) in the Medical Technology field.

Based on the curriculum design, there is a focus on professional education by preparing the graduates for practical work and by corresponding to the needs of the labour market.

The Orthopaedic Technology study programme is the only one provided in Lithuania.

Both study programmes are offering well-structured study plans. There is an ability to individualize study plans for the whole population of students and not only for those with special needs, however, there are limitations in choosing freely elective courses that are not included in the list provided by the College, and this could be extended into the whole population of students allowing them to personalise their studies and to receive the credits for freely elective modules.

Based on the structure of the study plan and the need to develop high technology use related competencies, it is recommended to include a course related to the medical equipment in the Emergency Medical Aid programme, probably by expanding IT and ECG courses in the future.

It could be beneficial to include a separate course related to active prosthetics and bionics principles in the Orthopaedic Technology study programme in order to reflect the advancements of prosthetic technologies.

- Links between Science (Art) and Studies

It can be highlighted that some of the part-time teachers are involved in high-quality research (even on topics not directly related to Medical Technologies at their home institutions) and they have publications in respected international journals. This shows that they can be valuable advisors for their colleagues seeking to perform research and to get publications in the Medical Technology field.

The need for applied research is requiring the development of appropriate infrastructure (e.g. laboratories, equipment) as the dependence on the partner's research facilities will continue to limit the involvement of teachers and students in research activities. It would reduce the ability to integrate the latest research findings in the content of their study fields.

- Student Admission and Support

The growing numbers of students willing to study in Orthopaedic Technology and Emergency Medical Aid study programmes shows a positive trend for the growth in the future.

The students in the Medical Technology field programmes have good access to use the infrastructure and equipment in any other faculty for their study purposes.

It is worth noting that students are promoted to participate in various professional competitions and games (in Lithuania and abroad).

The attention should be given to start to develop some courses in English, which would be recommended not only within Lithuanian-taught programme, but may help to attract students and teachers from other countries.

It should be noticed that academic, social, financial and psychological support needs a better presentation on the ILK website. Better usage of social networks could make the information more accessible to students.

- *Teaching and Learning, Student Performance and Graduate Employment*

Teaching and Learning process at ILK is based on the pedagogic paradigm that encourages the students to benefit from a variety of active studies and participation in practical training.

Both Orthopaedic Technology and Emergency Medical Aid study programmes deliver sufficient level and quality of practical training to ensure maximum rates of student employability.

International cooperation is sufficiently developed, however, more international mobility is recommended.

Student performance and graduate employment is assessed through the activities of committees of both study programmes. A better training in academic research would be beneficial in order to improve the quality of bachelor thesis and to provide necessary encouragement to pursue further academic growth for the students. The employment practice for teachers requires some attention from administration regarding issues such as minimum wages and mixed academic/administrative positions for future quality of the program sustainability and academic competence and research development strategy.

- *Teaching Staff*

The teaching staff for both study programmes is mainly represented by experienced professionals in their fields, 17 out of 25 are co-authors of scientific publications or conference reports, 7 of them hold doctoral degrees. Professional development is facilitated by regular seminars that are well attended. However, there is only one full-time teacher as all others work on part-time basis with a very significant difference in their teaching load, and no research-based commitment is included. High dependence on adjunct teachers may be risky for the programmes if some unexpected emergency situation occurs.

More teaching staff with academic degrees (currently 28%) could be beneficial for the program to ensure academic excellence, which is needed in practice as well as in scientific research and could improve the quality of guidance for Thesis.

- *Learning Facilities and Resources*

Both programs have strong ties with the industries, which is beneficial to students to obtain good practical experience during their studies and to insure high level of employability. The technical base for student's training is offered at the laboratories and specialised classrooms.

The current practice for materials renewal seems to satisfy the needs of programmes of the Medical Technology field. However, investments into wellbeing infrastructure development should be included into the planning. It is also suggested that ILK should develop a strategy for physical and mental wellbeing maintenance of their students, not only focus on technical aspects of professional training.

- Study Quality Management and Public Information

The internal quality assurance system of the studies is present, the responsibilities in the management processes of the study programmes are well distributed. However, a clear strategy for the responsibilities in the management processes of the study programmes is missing and a better alignment of responsibilities would be beneficial.

ILK uses multiple surveys to collect information from current students, graduates, teachers and stakeholders and to react to obtained feedback and suggestions to increase the quality of studies.

Multiple activities are organised, including the days of open doors, professional guiding activities and fairs involving students and stakeholders. However, the information about the study programmes should be significantly better publicised by developing an effective marketing plan.

In Summary, both Orthopaedic Technology and Emergency Medical Aid are highly professional study programmes serving to fulfil the needs for the specialists in specific fields related to medical technology. While preparing graduates with applicable skills and competencies highly valuable for today's labour market, they would benefit a lot from more focused efforts towards strengthening applied research, more advertisement in local and foreign markets, as well as taking care of sustainability of the programmes in the long run.

Expert panel chairperson signature:

Prof. Dr. Dalia Giedrimienė