



STUDIJŲ KOKYBĖS VERTINIMO CENTRAS

Šv. Ignaco Lojolos kolegijos  
**STUDIJŲ PROGRAMOS *ORTOPEDIJOS  
TECHNOLOGIJA (653B83001)***  
**VERTINIMO IŠVADOS**

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**EVALUATION REPORT**  
***OF ORTHOPAEDICS TECHNOLOGY (653B83001)***  
**STUDY PROGRAMME**  
at St. Ignatius of Loyola College

Grupės vadovas: Team leader:	Prof. dr. Aleksandar Jovanovic
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## DUOMENYS APIE ĮVERTINTĄ PROGRAMĄ

Studijų programos pavadinimas	<i>Ortopedijos technologija</i>
Valstybinis kodas	653B83001
Studijų sritis	Biomedicinos mokslai
Studijų kryptis	Medicinos technologijos
Studijų programos rūšis	Koleginės studijos
Studijų pakopa	pirmoji
Studijų forma (trukmė metais)	Nuolatinė (3), iššęstinė (4)
Studijų programos apimtis kreditais	180
Suteikiamas laipsnis ir (ar) profesinė kvalifikacija	Medicinos technologijų profesinis bakalauras
Studijų programos įregistravimo data	2011-06-02 įsakymo nr. 1-01-84

## INFORMATION ON EVALUATED STUDY PROGRAMME

Title of the study programme	<i>Orthopaedics Technology</i>
State code	653B83001
Study area	Biomedical Sciences
Study field	Medical technology
Kind of the study programme	College studies
Study cycle	first
Study mode (length in years)	Full-time (3), part-time (4)
Volume of the study programme in credits	180
Degree and (or) professional qualifications awarded	Professional Bachelor of Medical Technology
Date of registration of the study programme	22-06-2011, order no. 1-01-84

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The Centre for Quality Assessment in Higher Education

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## I. INTRODUCTION

Center for Quality Assessment in Higher education has started the evaluation procedure for the Orthopaedic Technology study programme at the St. Ignatius Loyola College, Kaunas, Lithuania, according to the Procedure Of The External Evaluation And Accreditation Of Study Programmes, 24 July 2009 No ISAK-1652 amended on 05.11.2009; 17.12.2009; 30.09.2010. The necessary documents, including relevant legislature, Self Evaluation Report (hereinafter SER) and its annexes were completed prior the evaluation process. The evaluation team, consisting of:

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Prof. Lajos Borbás

Dr. Graham Gavin

Doc. dr. Julius Griškevičius

Birutė Lašaitė (student representative)

was established in due time and has started the first phase of the evaluation process, which was based on the documents provided and the existing legislation acts and the Law on Higher Education and Research. The same team participated in the second phase of the evaluation, consisting of the site-visit to the institution organizing the Study Programme and the interviews with the stakeholders and evidencing the premises and the equipment quality in relation to the Study Programme requirements. The site-visit took place on 22.04.2014.

## II. PROGRAMME ANALYSIS

### *1. Programme aims and learning outcomes*

The aim of the study programme is well-defined and completely consistent with the bachelor EQF level VI (Professional bachelor studies) requirements (e.g. advanced knowledge of the field of work/study, involving critical understanding of theories and principles; advanced skills demonstrating mastery and innovation required to solve complex and unpredictable problems in the specialised field; manage complex technical or professional activities or projects, taking responsibility for decision making unpredictable study contexts). The main aim of the study programme is to train a specialist awarded with a qualification a Professional Bachelor's degree in Medical Technologies, able to produce and adjust individual orthopaedic devices and having

the ability to work independently in various orthopaedic companies. This aim is also in accordance with the level 6 LTQF descriptor.

The learning outcomes at the Study Programme level are exceptionally well defined. They are in accordance with the descriptors and competences defined at the level VI of EQF, and LTQF (see above). Moreover, the learning outcomes composition is in accordance with all six categories of the cognitive domain of the Blooms taxonomy and also with the categories in the affective and psychomotor domains, especially in the categories C, D and E (e.g. Special skills, Social competences and Personal competences) of the Table of the Learning outcomes provided at the page 7 of the SER. The Programme outcomes are in accordance with the sub-aims of the programme, defined at the section eleven at the p 6 of the SER.

The learning outcomes of the study programme are very clear and concrete and consistent with each other and may serve as a model for the other study programmes and institutions. They are in accordance with the competencies provided in the Description Of Learning Outcomes Of The First Study Cycle (Appendix 2 at the Descriptor of Study Cycles). Moreover, the outcomes are diverse and correspond to all cognitive categories of Blooms Taxonomy and also include psychomotor and affective domain categories required for successful development of research, social and personal competencies (Table 2, SER). Although the predicted employment rate for the graduates may be very high at the moment, a saturation of the labour market may take place in the relatively near future and therefore it is very important to provide students with transferable skills – communication, analytical skills, leadership, information management skills, project and research management skills. At the same time, the students awareness of transferable skills and the possibilities of employment in related/ unrelated sectors, opportunities for continuous professional development should be increased.

The name of study programme, its learning outcomes, content and qualification offered are compatible with each other. The employers and social partners are included in the very creation and development of the study programme – on the strategic level. They follow through the process to ensure that curriculum and practice oriented courses allow the students to obtain the necessary skills. The predicted employability for the students is high; the interest for the programme is favourable and the sustainability of the programme is ensured. Very strong social partners contribute to the sustainability of the programme.

The introduction of the students to the applied research is required in this specific field and dictated by the labour market needs. The students' applied research and project competences are developed through the complex activities which are characterised by a variety of tasks and contents and the result analysis throughout the Study Programme.

## ***2. Curriculum design***

The curriculum was developed in 2010, in accordance with the Law of Research and Higher Education, the Approval of the Description of General Requirements of First Degree and Integrated Study Programmes and other consecutive relevant legal acts. The scope of the Study Programme is 180 ECTS, which is minimal requirement of College Study Programmes, as stated in General Requirements of First Degree and Integrated Study Programmes. The duration of studies is three years, a period which may be extended to 4 years for the part-time students. The scope of the Programme is sufficient to ensure the provision of its learning outcomes.

The distribution among the general subjects, subjects in the specific study field and the elective subjects are within the Requirements of College study programmes, thus meeting legal requirements. Of the volume in the specific study field, 42 of 135 credits are allocated for professional practice and the preparation of final thesis.

The choice of the elective courses is reasonable, and it considerably expands the options for the students adjusting to the labour market needs. From the SER, p. 9, it is obvious that there are two types of the elective subjects, the first group is the free elective courses and the other is the group of the elective courses prescribed by the College. The latter group of electives provides the deeper specialization in the area, while the free courses may be picked by the students in accordance with their opinion and projection of the future career requirements.

The theoretical subjects/practical training ratio is also in accordance with the legislature (Description of General Requirements of First Degree and Integrated Study Programmes, 2010). Considering the fact that an orthopaedic technologist's activities are oriented to practical training and specific practical activities, it is not surprising that the scope of the practice is well above the minimum of 30 credits prescribed by the legal act (33 credits, e.g. 37% of the workload). The completion of final thesis is awarded with 9 credits (the legal minimum).

The subjects are distributed evenly, according to the legislation with no more than 7 subjects per semester. Workload is also distributed evenly, with 30 credits per semester. While the 41% of the studies is consisting of the self-studies, the structure of the self-studies is not particularly elaborated: it is mostly based on the adoption of the theoretical content and do not include other activities such as group work without direct teachers' guidance, additional laboratory work, project implementation, creative activities, online based learning.

Subject themes are related to the aims and learning outcomes of the study. The analysis of the Annex 2 showed that the course learning outcomes are in line with the study programme learning outcomes and that course learning outcomes are exceptionally well defined and elaborated and formulated very clearly. It should be noted that the expected course learning outcomes in the Annex 2 are named the planned results of the study subjects and that these names (learning outcomes and results of the studies) are synonymous.

Moreover, a distinctive learning methodology is related to each course learning outcome and both outcomes and the respective methodologies are related to the particular form of the assessment. This connection of the learning outcomes, methodology and assessment in the Annexes 2 and 3 is done at the expert level and it is a precondition for the introduction of constructive alignment of the learning outcomes, which is the way for the permanent improvement of the studies, which is one of the aims of the College. The basic principle is that the accomplishment of the learning outcomes may be measurable through the assessment results; in the case of unsatisfactory achievements, a learning methodology, assessment method or the learning outcome itself may be changed or adjusted in order to improve performances. Still, the learning methodology should be further diversified. Student activities in group/ team project work, promoting creative thinking, design skills, social, interaction and team working and entrepreneurial skills, entry to competitions etc. should be increased.

The content of the modules and subjects (as presented in the Annex 3) is adequate for the Professional Bachelor studies. The subjects are aligned in 6 modules, thus enabling a more comprehensive absorption of the study material. Study subjects are arranged sequentially, with neither the subjects nor their themes duplicating each other.

The content of study subjects is based on the current achievements in science and technology and is designed to facilitate problem solving in professional practice and innovation. The content of studies, teaching/learning and assessment methods are oriented to practical training of students. However, the study programme should make an additional effort to include modern and pending tendencies in the area (for example, Electro-Mechanical Systems and Sensors) into the courses, since this type of content is not represented enough (site-visit on 22.04.2014).

### *3. Staff*

The staff engaged at the Study Programme of Orthopaedics technology meets the legal requirements. A total of 18 teachers are engaged in the provision of the Programme. While the less than a third of them have the master degree, the majority have PhD degree. The teaching staff body consists mainly of lecturers (83%), professors (11%) and associate professors (6%); there are also guest lecturers and pedagogues with significant experiences invited to take part in the provision of the parts of the Programme. The number of teachers, their qualifications and the fields of interests are adequate for the provision of the respective subjects and the learning outcomes (as shown in the Annex 4). Since the programme has only started it is not easy to bring judgement of the teachers' turnover since the number of the teachers leaving positions is now low.

The minority of the Programme teachers have attend seminars, courses and conferences in order to improve their research and teaching competences (Site-visit on 22.04.2014). Pedagogical competences of teachers should be improved with regards to student oriented approach. The publications are mainly conference proceedings and textbook chapters (Annex 5), but there are some national and international journals publications. Research competencies and publication of teachers may also be improved. Teachers are also engaged in different national and international research and educational projects (e.g. Mastery of Procedural and Progressive Methods of Research of Medicinal Devices, Aimed at Placing New Products on the Market (2007), Product Procedural Development as a Result of Interaction between Business and Research (2008), Modular System Development and Application in Manufacturing Orthopaedic Footwear (2009) and Orthopaedic Splint Systems on the Basis of new Technologies (2010), Modernization of Orthopaedic Specialist Training Environment (2008-2010), Development of Technologies for Adhesive Fastening of Different Nature and Structure Polymer Layers to Metal (2013), Selection and Evaluation of Multifunctional Polymer for Wastewater Polluted with Oil Products and Waste Water Treatment



(2013), Protective Multi-Medical Silicone Elastomer Coating (2013-2014) Optically Transparent Polymer Nanocomposite Displays for Radiation Protection).

Teachers use modern educational technologies. During the period from 2010 to 2012, seven College employees attended international seminars and conferences abroad. However, teachers mobility is not developed enough so far, and the participation in teachers' exchange programmes is in the starting phase. Therefore, study programme ensures and conditions for the teachers' professional development; additional efforts should be put in order to enhance teacher's mobility.

#### ***4. Facilities and learning resources***

The premises are sufficient for the provision of the Orthopaedics Technology study programme. Along with the College's premises, the practical training also takes place at the private enterprise UAB "Ortopedijos klinika".

There are four classrooms with the total of 120 working places allocated for the theoretical lectures. In addition, there are eleven modern practical teaching lecture rooms containing equipment and teaching facilities necessary to specialists in this field.

The Programme is provided in the modern practical training College base with the new laboratory equipment and furniture. Additional equipment can be used on the UAB "Ortopedijos klinika".

The students may use computer classroom with 20 working places and the computerized library. Furthermore, the College has developed preconditions for creation of the modern learning management system in order to introduce online and hybrid learning, monitoring and communication of the students having their practices or internships at the remote locations. Still, the college has to make effort to increase the number and quality of audio-visual devices used in the delivery of the courses.

The library has a reading room sufficient for the number of the students included in the Programme, but the College also signed the agreements with other university libraries and training centres. Moreover, recently the College became a member of the Lithuanian Association of Scientific Libraries and the students will be able to use additional test databases and scientific information.

Studijų kokybės vertinimo centras

In summary, based on the SER data, the premises, laboratory and learning equipment are sufficient for the provision of the programme (Site-visit on 22.04.2014). The agreements for the students' practice are in place, and the library is well equipped and accessible both physically and online.

### ***5. Study process and student assessment***

The admittance procedure is based on the Orders of the Minister of Education and Science, On the Approval of the Description of the Procedure for Establishing the Sequence of Best School-leavers and the Description of the Procedure for General Admittance to Basic and Integrated Studies at Lithuanian Higher Education Institutions, as well as the College legislature. The admission requirements are well-founded. In the first year of establishing the programme, the students in the seats financed by the state were admitted – a stimulatory measure for the newly established Programme provided by the Ministry (Site-visit on 22.04.2014) - while in the second and third year only the students for non-financed seats were accepted. In the next two years, the number of students admitted was stable, although it did not reach the 2011 maximum. The dropout rate during the first three years was 0% (Table 10, SER).

The students' daily and weekly workload is distributed so the daily workload is comfortably balanced between the lectures, practical work, independent studies and research activities. The learning process is diverse and includes theoretical lectures practical trainings, projects, problem - based and research activities, group discussions, essays. An introduction of online-based learning and hybrid courses is planned soon, using MOODLE platform. The possibility has been created for the Orthopaedics Technology Programme students to study according to the individual study schedules.

The procedures for practical professional trainings and their monitoring are well based. Students learn how to know relevant materials, become familiarized with technological processes, gain skills in producing orthotics and prosthetics as well as testing different models and communicate with customers (SER, p. 12). The monitoring is organized by the cooperation between teachers and practice managers, e.g. programme curators from the College and specialists appointed for the on-site supervision.

The procedures and outcomes of the elaboration of final theses are established. During their studies students have identify relevant and topical issues of their final theses related to areas of practical orthopaedic technologist's work, design and/or production of orthopaedic devices used in rehabilitation, the improvement of such equipment and adjustment to the needs of a patient. The first theses are to be completed during 2014. The topics of the final theses (Site-visit on 22.04.2014.) are adequate for the programme but experts would encourage more diversity in project areas, including future trends in patient specific devices.

Every student is encouraged to get engaged in applied research. Information about the possibility to write scientific articles, reports, to participate in conferences is constantly provided to the students. The provisions on awarding scholarships to students provide for material incentives to the students who take part in research activities (SER, p. 20). The content of study subjects is based on the latest achievements in science and technology and is designed to facilitate problem solving and innovation. The skills in scientific research work are developed during the theoretical and practical activities.

The assessment process relies mostly on summative assessing methodology (oral and written exams, defence of the final thesis - Site-visit on 22.04.2014.). Formative assessment methodology should be better integrated into the practice. This includes papers, reports on professional practices, quizzes, designs, work of arts, self assessment and peer assessment, seminars, practical classes, projects, carrying out other creative tasks, projects, presentation, demonstration of practical skills, research work, essays, compositions, reports, case analysis, a folder of achievements, emphasizing a tendency towards the constant learning and assessment during the whole period of the studies. Assessment criteria are well funded and coordinated among the staff, and the teachers present the system on the first lectures. With the introduction of learning management system, the establishment of the common test database is recommended.

Students' mobility is encouraged mostly indirectly, by providing the information about the possibilities. So far, few students took part in the bilateral mobility programmes. Active role in enhancing the teachers and students mobility, including sabbatical leaves for the teachers, expanding the relations with the international academic community and the active role of the teachers and the management in mobility promotion is recommended.

The College established constant support procedures for the students, including descriptions of the subjects, contents, volumes, methods of the study programme, as well as the procedure for assessing results, list of resources necessary to the studies and methodological instructions. Students are acquainted with the procedure during their meetings with academic groups. The individual and group consultations with the teachers are regularly organized and intensified as the needs arose (in the periods prior to examination).

While there is no Students Career Centre established, the Head of the Department and the Programme Coordinator and especially the Quality Laboratory of the College overtook the responsibility for the student career counselling, social support and contacts with employers. Still, improvement of student support services, including student career service and guidance, social interaction/ networking services, clubs and societies, enterprise and innovation centre/ activities may be further developed.

#### ***6. Programme management***

The decision making process is clearly distributed among the College bodies and representatives. The rules, procedure and responsibilities are well-funded and supported by the College legislature. The Project Manager, the Head of the Department, the Head of the Study Division, the Headmaster, the Study Programme Committee, the Academic Council and the Quality Laboratory take part in the processes of carrying out, updating the study programme and ensuring its quality. The Department also has a prominent role in organizing teaching methodology and assessment procedures. However, the Department should also take additional responsibility for the adjustments and creation of the learning outcomes (now placed on the higher level – the Head of the Department) of the programme, e.g. constructive alignment of the learning outcomes, so after three years of the provision of study programmes they were not intended or “expected” (SER, p5, 12, 13, 14) but adjusted and based on the study and assessment results and future tendencies. In this process, along with the managements, social partners, and training centres representatives, the role of teachers and the students is invaluable. The students and teachers already discuss the study outcomes and activities at the Quality Laboratory, which is the excellent way of improving the study programme.

The results of the internal and external assessment of the Programme are used effectively in improving the Programme. The college engages all members of the College community in the quality assurance system, the preparation of self-assessment reports and their presentations. The

quality assurance procedures and bodies are exceptionally well established and the College puts lot of efforts to establish the quality culture. All aspects of the study process are comprised within the quality assessment criteria (SER, p. 26). Sources and instruments of collecting information are diverse and abundant (SER, p. 26). Among the bodies in charge for quality assurance, the Quality Laboratory has a prominent role in collecting, processing and summarizing the information.

The assessment of the Orthopaedics Technology Programme is made on the annual basis. Data and other information about the implementation of the Programme are collected and analysed regularly. The process of self-assessment is carried at all levels. Students also take an active part in the self-assessment process, not only by the formal representative in the Study Programme Committee and by regular students' evaluation performed once in semester, but also by the direct discussions with teachers and social partners organized by the Quality Laboratory (Site-visit on 22.04.2014.)

Students' evaluations are performed regularly, at the end of each semester and the results are used to improve the programme. Surveys of the students are directed towards the analysis of the students' needs, the analysis of achievement, and satisfaction with the quality of teaching. It is analysed how the students assess the study programme itself, the subject modules and the quality of studies and how the future employers assess the students during the professional practices. It would also be helpful to establish the real – time, not only retrograde, students' evaluation of the learning process, with the questionnaires distributed at the end of the lectures/practical trainings.

### III. RECOMMENDATIONS

1. The students awareness of transferable skills and the possibilities of employment in related/ unrelated sectors, opportunities for continuous professional development should be increased
2. The study programme should make an effort to include modern and pending tendencies into the learning contents, for example Electro-Mechanical Systems and Sensors.

3. Student's activities in group/ team project work, promoting creative thinking, design skills, social, interaction and team working and entrepreneurial skills, entry to competitions etc. should be increased.
4. Pedagogical competences of teachers should be improved with regards to student oriented approach. Learning methodology should be diversified. Student activities in group/ team project work, promoting creative thinking, design skills, social, interaction and team working and entrepreneurial skills, entry to competitions etc. should be increased.
5. Research competencies and publication of teachers may also be improved, by increasing number of articles published in the international and leading national journals.
6. College should expand its capacities in online and hybrid learning. The college has to make effort to increase the number and quality of audio-visual devices used in the delivery of the courses.
7. Formative assessment methodology should be better integrated into the practice. The Study programme should introduce different forms of formative assessment methodology and define their contribution to the final score.
8. The topics of the final theses are adequate for the programme but experts would encourage more diversity in project areas, including future trends in patient specific devices.
9. Improvement of student support services, including student career service and guidance, social interaction/ networking services, clubs and societies, enterprise and innovation centre/ activities should be further developed.
10. Students and teachers mobility should be further promoted and encouraged. Management should encourage sabbatical leaves of the teachers and expand the relations with the institutions abroad in order to encourage the participation in the mobility programmes.

#### IV. SUMMARY

The Orthopaedics Technology is modern, output-oriented programme, created in order to respond to the actual requirements in the labour market. The employers and social partners are included in the very creation and development of the study programme – on the strategic level. They follow through the process to ensure that curriculum and practice oriented courses allow the students to obtain the necessary skills.

The predicted employability for the students is high; the interest for the programme is favourable and the sustainability of the programme is ensured. Very strong social partners contribute to the sustainability of the programme.

The aim and learning outcomes of the study programme are well-defined and completely consistent with the bachelor EQF level VI and with the level 6 LTQF descriptor. The learning outcomes at the Study Programme level are exceptionally well defined. The aims and learning outcomes of the courses are well designed, measurable and adequately linked to the learning and assessment methodologies. However, the students' awareness of transferable skills and the possibilities of employment in related/ unrelated sectors, opportunities for continuous professional development should be increased.

The distribution among the general subjects, subjects in the specific study field and the elective subjects meets legal requirements. The choice of the elective courses is reasonable, and it considerably expands the options for the students adjusting to the labour market needs. The theoretical subjects/practical training ratio is also in accordance with the legislature. The subjects and the workload are distributed evenly. The content of the modules and subjects is adequate for the Professional Bachelor studies. The content of study subjects is mostly based on the current achievements in science and technology and is designed to facilitate problem solving in professional practice and innovation.

Teaching staff meets the legal requirements. Pedagogical competences of teachers should be improved with regards to student oriented approach. The college should put more effort in actively promoting teachers' and students' mobility. Research competencies and publication of teachers may also be improved.

The premises, laboratory and learning equipment are sufficient for the provision of the programme, but may be better equipped with the audio-visual devices. The agreements for the students' practice are in place, and the library is well equipped and accessible both physically and online.

The admittance procedure is based on the law and legislature requirements. The study programme should continue efforts to further develop entry mechanisms onto the programme for those potential students from nonstandard entry-mature, vocational, industry etc. It's positive that the programme provides opportunities for vocational/ secondary students to enter academia.

The dropout rate during the first three years was 0%. The students' daily and weekly workload is well distributed. The procedures for practical professional trainings and their monitoring are well based.

The College should expand its capacities in online and hybrid learning. This would also help to establish constant monitoring and counselling of the students having their practical trainings in other remote institutions.

Every student is encouraged to get engaged in applied research, including the material incentives for the research. The procedure and methodology for the accomplishment and the defence of final theses are well established. The topics of the final theses are adequate for the programme but experts would encourage more diversity in project areas, including future trends in patient specific devices.

The current assessment process relies mostly on the summative methodology. Formative assessment methodology should be better integrated into the practice. The Study programme should introduce different forms of formative assessment methodology and define their contribution to the final score.

Students' mobility is encouraged mostly indirectly, by providing the information about the possibilities. Students' mobility should be further promoted. The individual and group consultations with the teachers are regularly organized. While there is no Students Career Centre, the Quality Laboratory of the College took the responsibility for the student career counselling, social support and contacts with employers. Improvement of student support services, including



student career service and guidance, social interaction/ networking services, clubs and societies, enterprise and innovation centre/ activities should be further developed.

The decision making process is clearly distributed among the College bodies and representatives. The rules, procedure and responsibilities are well-funded and supported by the College legislature. The programme has very well developed quality assurance system. The students and teachers discuss the study outcomes and activities at the Quality Laboratory, which is the excellent way of improving the study programme. The Quality Laboratory has a prominent role in collecting, processing and summarizing the information.

Students' evaluations are performed regularly, at the end of each semester and the results are used to improve the programme. It would also be helpful to establish the real – time, not only retrograde students' evaluation of the learning process, with the questionnaires distributed at the end of the lectures/practical trainings.

## V. GENERAL ASSESSMENT

The study programme Orthopaedics Technology (state code – 653B83001) at St. Ignatius of Loyola College is given **positive** evaluation.

*Study programme assessment in points by evaluation areas.*

No.	Evaluation Area	Evaluation Area in Points*
1.	Programme aims and learning outcomes	4
2.	Curriculum design	3
3.	Staff	3
4.	Material resources	3
5.	Study process and assessment (student admission, study process student support, achievement assessment)	3
6.	Programme management (programme administration, internal quality assurance)	3
	<b>Total:</b>	<b>19</b>

\*1 (unsatisfactory) - there are essential shortcomings that must be eliminated;

2 (satisfactory) - meets the established minimum requirements, needs improvement;

3 (good) - the field develops systematically, has distinctive features;

4 (very good) - the field is exceptionally good.

Grupės vadovas:  
Team leader:

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<...>

## V. APIBENDRINAMASIS ĮVERTINIMAS

Šv. Ignaco Lojolos kolegijos studijų programa *Ortopedijos technologija* (valstybinis kodas – 653B83001) vertinama teigiamai.

Eil. Nr.	Vertinimo sritis	Srities įvertinimas, balais*
1.	Programos tikslai ir numatomi studijų rezultatai	4
2.	Programos sandara	3
3.	Personalas	3
4.	Materialieji ištekliai	3
5.	Studijų eiga ir jos vertinimas	3
6.	Programos vadyba	3
	<b>Iš viso:</b>	<b>19</b>

\* 1 - Nepatenkinamai (yra esminių trūkumų, kuriuos būtina pašalinti)

2 - Patenkinamai (tenkina minimalius reikalavimus, reikia tobulinti)

3 - Gerai (sistemiškai plėtojama sritis, turi savitų bruožų)

4 - Labai gerai (sritis yra išskirtinė)

## IV. SANTRAUKA

Ortopedijos technologija – tai šiuolaikinė, rezultatų siekianti programa, parengta pagal faktinius darbo rinkos reikalavimus. Rengiant studijų programą strateginiu lygmeniu dalyvavo darbdaviai ir socialiniai partneriai. Jie stebi procesą, siekdami užtikrinti, jog mokymo programa ir praktinės studijos padėtų studentams įgyti reikiamų gebėjimų.

Numatomos studentų galimybės įsidarbinti didelės, susidomėjimas programa palankus, programos tvarumas užtikrinamas. Prie programos tvarumo prisideda labai stiprūs socialiniai partneriai.

Studijų programos tikslas ir studijų rezultatai gerai apibrėžti ir atitinka Europos kvalifikacijų sandaros (EKS) VI lygio bakalauro laipsnį ir Lietuvos kvalifikacijų sandaros (LKS) aprašo 6 lygį. Studijų rezultatai studijų programos lygmeniu ypatingai gerai apibrėžti. Studijų tikslai ir rezultatai dalykuose gerai apibrėžti, išmatuojami ir tinkamai susieti su mokymosi ir vertinimo metodologija. Vis dėlto studentus reikėtų labiau šviesti apie perkeliamuosius gebėjimus ir galimybę dirbti susijusiuose ar nesusijusiuose sektoriuose, apie nuolatinio profesinio tobulėjimo galimybes.

Bendrųjų dalykų, studijų krypties ir pasirenkamųjų dalykų išdėstymas atitinka teisės reikalavimus. Pasirenkamųjų dalykų įvairovė pagrįsta, studentai įgauna gerokai daugiau alternatyvų prisitaikyti prie darbo rinkos poreikių. Teorinių dalykų ir praktinių užsiėmimų santykis taip pat atitinka teisės aktų reikalavimus. Dalykai ir darbo krūvis paskirstytas tolygiai. Modulių ir dalykų turinys tinkamas profesinėms bakalauro studijoms. Studijų dalykų turinys daugiausia paremtas mokslo ir technologijų laimėjimais ir skirtas lengviau spręsti profesinius praktikos ir inovacijų klausimus.

Dėstytojų kvalifikacija atitinka teisinius reikalavimus. Reikėtų tobulinti dėstytojų pedagoginę kompetenciją puoselėjant į studentus nukreiptą mokymą. Kolegija turėtų pasistengti aktyviai skatinti dėstytojų ir studentų judumą. Galima būtų tobulinti dėstytojų mokslinių tyrimų kompetenciją ir tokių tyrimų publikavimą.

Programai įgyvendinti pakanka patalpų, laboratorijų ir mokymo įrangos, tačiau galima būtų užtikrinti daugiau ir geresnių audiovizualinių priemonių. Susitarimai dėl studentų praktikos sudaryti, biblioteka gerai įrengta, ir jos paslaugomis galima naudotis tiek fiziškai, tiek internetu.

Priėmimo į kolegiją tvarka paremta įstatymų ir kitų teisės aktų reikalavimais. Pagal studijų programą turėtų būti ir toliau siekiama plėtoti stojimo mechanizmą potencialiems studentams iš nestandartinių profesinės pramonės sričių, kurie atitinka amžiaus cenzą ar pan. Palankiai vertinama, kad programa suteikia galimybę profesinio mokymo studentams ar vidurinių mokyklų mokiniams siekti tolesnio mokslo.

Per pirmus trejus metus studijų nebaigusių asmenų skaičius siekė 0 proc. Studentų kasdieniai ir savaitiniai darbo krūvis gerai paskirstytas. Praktinių profesinių mokymo ir jų stebėsenos procedūros gerai pagrįstos.

Studijų kokybės vertinimo centras

Kolegija turėtų ugdyti savo gebėjimus internetinio ir mišraus mokymo srityje. Taip galima būtų įdiegti nuolatinę studentų, dalyvaujančių kitų nuotolinių institucijų praktiniuose mokymuose, stebėseną.

Visi studentai skatinami dalyvauti taikomuosiuose moksliniuose tyrimuose, siūlomos materialinės paskatos priemonės. Gerai nustatyta baigiamųjų darbų rengimo ir gynimo tvarka. Baigiamųjų darbų temos atitinka programą, tačiau ekspertai skatintų diegti didesnę sričių, kuriose būtų vykdomi projektai, įvairovę, įskaitant būsimąsias tendencijas dėl pacientams skirtų prietaisų.

Dabartinis vertinimo procesas daugiausia paremtas kaupiamąja metodika. Vertinimo metodika turėtų būti geriau integruota į praktiką. Pagal studijų programą turėtų būti pristatomos skirtingos vertinimo metodologijos formos ir apibrėžta jų įtaka galutiniam balui.

Studentų judumas daugiausia skatinamas netiesiogiai, suteikiant jiems informaciją apie galimybes išvykti. Studentų judumas turėtų būti toliau skatinamas. Nuolat organizuojamos individualios ir grupinės konsultacijos su dėstytojais. Kadangi nėra studentų karjeros centro, kolegijos kokybės laboratorija prisiėmė atsakomybę už studentų konsultavimą karjeros klausimais, jiems teikiamą socialinę paramą ir ryšius su darbdaviais. Reikėtų toliau tobulinti studentų paramos paslaugas, kaip antai studentų karjeros ugdymo paslaugas, orientavimą, socialinės sąveikos ir tinklų kūrimo paslaugas, dalyvavimą klubų, bendruomenių, įmonių ir inovacinių centrų veikloje.

Sprendimų priėmimų procesas aiškiai paskirstytas tarp Kolegijos organų ir atstovų. Kolegijos teisės aktų priėmėjai aiškiai apibrėžė ir nustatė taisykles, tvarką ir atsakomybę. Programa paremta labai gerai suformuota kokybės užtikrinimo sistema. Studentai ir dėstytojai aptaria studijų rezultatus ir veiklą Kokybės laboratorijoje, o tai puikus būdas pagerinti studijų programą. Kokybės laboratorija atlieka svarbų vaidmenį renkanti, apdorojanti ir apibendrinanti turimą informaciją.

Studentai vertinami nuolat, kiekvieno semestro pabaigoje. Atsižvelgiant į gautus rezultatus programa tobulinama. Būtų taip pat naudinga nustatyti tiesioginį, ne tik jau įvykusio mokymosi proceso vertinimą, išplatinant klausimynus iš karto po paskaitų ar praktinių užsiėmimų.

Studijų kokybės vertinimo centras

### III. REKOMENDACIJOS

1. Reikėtų labiau informuoti studentus apie perkeliamuosius gebėjimus ir įdarbinimo galimybes susijusiuose ir (arba) nesusijusiuose sektoriuose, taip pat apie nuolatinio profesinio tobulėjimo galimybes.
2. Studijų programos mokymo turinį reikėtų papildyti šiuolaikinėmis ir būsimosiomis tendencijomis, pavyzdžiui, apie elektromechanines sistemas ir sensorius.
3. Reikėtų stiprinti studentų veiklą dirbant grupinį ir (arba) komandinį darbą projektuose, skatinti jų kūrybinį mąstymą, projektavimo įgūdžius, socialinius, bendradarbiavimo, komandinio darbo ir verslumo gebėjimus, dalyvavimą mokymuose ir pan.
4. Reikėtų tobulinti pedagogines dėstytojų kompetencijas, puoselėjant į studentus orientuotą požiūrį. Mokymosi metodologija turėtų būti diversifikuota. Reikėtų stiprinti studentų veiklą dirbant grupinį ir (arba) komandinį darbą projektuose, skatinti jų kūrybinį mąstymą, projektavimo įgūdžius, socialinius, bendradarbiavimo, komandinio darbo ir verslumo gebėjimus, dalyvavimą mokymuose ir pan.
5. Galima būtų tobulinti dėstytojų mokslinių tyrimų kompetencijas ir skelbti jų tyrimus, vis daugiau straipsnių spausdinant tarptautiniuose ir pagrindiniuose nacionaliniuose žurnaluose.
6. Kolegija turėtų plėsti savo internetinio ir hibridinio mokymo pajėgumus. Turėtų būti imamasi veiksmų, kad būtų pagerinta studijų metu naudojamų audiovizualinių priemonių kokybė ir padidintas jų skaičius.
7. Vertinimo metodologija turėtų būti geriau integruota į praktiką. Pagal studijų programą turėtų būti pristatomos skirtingos vertinimo metodologijos formos ir apibrėžta jų įtaka galutiniam balui.

8. Baigiamųjų darbų temos atitinka programą, tačiau ekspertai ragintų imtis projektų įvairiose srityse, taip pat atsižvelgti į būsimąsias tendencijas dėl pacientams skirtų prietaisų.
9. Reikėtų toliau tobulinti studentų paramos paslaugas, kaip antai studentų karjeros ugdymo paslaugas, orientavimą, socialinės sąveikos ir tinklų kūrimo paslaugas, dalyvavimą klubų, bendruomenių, įmonių ir inovacinių centrų veikloje.
10. Reikėtų toliau skatinti ir plėtoti studentų ir dėstytojų judumą. Vadovai turėtų skatinti dėstytojus eiti mokymosi atostogų ir plėsti savo ryšius su užsienio švietimo institucijomis, siekiant didesnio dalyvavimo judumo programose.

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