



STUDIJŲ KOKYBĖS VERTINIMO CENTRAS

LIETUVOS SVEIKATOS MOKSLŲ UNIVERSITETO
STUDIJŲ PROGRAMOS "FARMACIJA"
(valstybinis kodas - 6011GX003)
VERTINIMO IŠVADOS

EVALUATION REPORT
OF "PHARMACY" (state code - 6011GX003)
STUDY PROGRAMME
at LITHUANIAN UNIVERSITY OF HEALTH SCIENCES

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Išvados parengtos anglų kalba
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DUOMENYS APIE ĮVERTINTĄ PROGRAMĄ

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|--|--|
| Studijų programos pavadinimas | <i>Farmacija</i> |
| Valstybinis kodas | 6011GX003 |
| Studijų sritis (studijų krypčių grupė)* | Sveikatos mokslai |
| Studijų kryptis | <i>Farmacija</i> |
| Studijų programos rūšis | Universitetinės |
| Studijų pakopa | Vientisosios studijos |
| Studijų forma (trukmė metais) | Nuolatinė (5 metai) |
| Studijų programos apimtis kreditais | 300 |
| Suteikiamas laipsnis ir (ar) profesinė kvalifikacija | Sveikatos mokslų magistras, Vaistininkas |
| Studijų programos įregistravimo data | 2001-08-02 |

* skliaustuose nurodomi nauji duomenys, kurie pasikeitė nuo 2017 m. sausio 1 d. įsigaliojus Studijų krypčių ir krypčių grupių, pagal kurias vyksta studijos aukštosiose mokyklose sąrašui bei Kvalifikacinių laipsnių sąrangai.

INFORMATION ON EVALUATED STUDY PROGRAMME

| | |
|---|---------------------------------------|
| Title of the study programme | <i>Pharmacy</i> |
| State code | 6011GX003 |
| Study area (Group of study field)* | Health Sciences |
| Study field | Pharmacy |
| Type of the study programme | University |
| Study cycle | Integrated |
| Study mode (length in years) | Full time (5 years) |
| Volume of the study programme in credits | 300 |
| Degree and (or) professional qualifications awarded | Master of Health Sciences, Pharmacist |
| Date of registration of the study programme | 2 August, 2001 |

* in brackets new data provided, valid from 1 January, 2017 after List of study fields and groups of study fields Framework of qualification degrees came into force.

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The Centre for Quality Assessment in Higher Education

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I. INTRODUCTION

1.1. Background of the evaluation process

The evaluation of on-going study programmes is based on the **Methodology for evaluation of Higher Education study programmes**, approved by Order No 1-01-162 of 20 December 2010 of the Director of the Centre for Quality Assessment in Higher Education (hereafter – SKVC).

The evaluation is intended to help higher education institutions to constantly improve their study programmes 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) *visit of the review team at the higher education institution*; 3) *production of the evaluation report by the review team and its publication*; 4) *follow-up activities*.

On the basis of external evaluation report of the study programme SKVC takes a decision to accredit study programme either for 6 years or for 3 years. If the programme evaluation is negative such a programme is not accredited.

The programme is **accredited for 6 years** if all evaluation areas are evaluated as “very good” (4 points) or “good” (3 points).

The programme is **accredited for 3 years** if none of the areas was evaluated as “unsatisfactory” (1 point) and at least one evaluation area was evaluated as “satisfactory” (2 points).

The programme is **not accredited** if at least one of evaluation areas was evaluated as "unsatisfactory" (1 point).

1.2. General

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

| No. | Name of the document |
|-----|----------------------|
| | |
| | |

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1.3. Background of the HEI/Faculty/Study field/ Additional information

The Lithuanian University of Health Sciences (LSMU) is a state university and one of institutions running a Master of Pharmacy degree in Lithuania. The Master of Pharmacy degree is the study programme being evaluated in this document. LSMU dates from 1919 but has been

in its current form since 2010. LSMU's focus is biomedical science, in terms of teaching, research and outreach work. The Master of Pharmacy degree is delivered primarily by the Faculty of Pharmacy, which has the following sub-divisions: Department of Analytical and Toxicological Chemistry, the Department of Pharmacognosy, the Department of Clinical Pharmacy, the Department of Drug Technology and Social Pharmacy.

The mission of the Faculty of Pharmacy is:

- to provide modern professional knowledge and skills striving for advance, welfare and health of society;
- to educate and raise qualifications of pharmacy specialists;
- to form a system of attitudes and values;
- to participate in scientific research in the field of pharmacy; and
- to participate in formation and implementation of healthcare policy and strategy.

The objectives of the Faculty of Pharmacy are:

- to ensure the compliance of the Pharmacy study programme with the European Union (EU) requirements;
- to pursue the accessibility of pharmacy studies to young people, healthcare specialists, and other related professionals;
- broadly integrate the Pharmacy study and research activities in the pharmacy field;
- to educate highly qualified pharmacy specialists applying modern information technologies, effective teaching and learning methods.

1.4. The Review Team

The review team was completed according *Description of experts' recruitment*, approved by order No. V-41 of Acting Director of the Centre for Quality Assessment in Higher Education. The Review Visit to HEI was conducted by the team on *30/November/2017*.

Review team:

- 1. Damian Richard Day (team leader)**, *Head of Education, General Pharmaceutical Council, United Kingdom;*
- 2. Prof. dr. André RTS Araujo**, *Professor in Pharmacy, School of Health Sciences, Polytechnic of Guarda, Portugal;*
- 3. Prof. dr. Borut Božič**, *Professor of Faculty of Pharmacy, University of Ljubljana, Slovenia;*
- 4. Ms. Rasa Radžiūnienė**, *Product group manager of Sandoz Pharmaceuticals d.d., Branch office, Lithuania;*
- 5. Ms. Vygailė Pundzaitė**, *student of Vytautas Magnus university study programme Biochemistry.*

II. PROGRAMME ANALYSIS

2.1. Programme aims and learning outcomes

This study programme is an integrated master's degree aiming to graduate students fit to practise as pharmacist in Lithuania. The graduates of this programme work in social/community pharmacies, hospitals or pharmacy wholesale and the programme is focussed on the knowledge and skills required for that profession in those sectors. Currently it is the only programme in Lithuania graduating pharmacist although a second has been established in Vilnius. As an integrated degree it includes study at first cycle level, bachelor level, and at second cycle level, master's level. The programme is delivered primarily in Lithuanian but also in English for a smaller number of students.

The programme is delivered by the LSMU Faculty of Pharmacy but with contributions from 15 other departments and clinics. LSMU is grounded in pure and applied scientific research and the programme is a good example of combining research and practice, with a clear focus on pharmacy and pharmacists. It is, therefore, clearly aligned with the mission and objectives of the Faculty.

The visiting team tested the aims of the programme with academic staff, students, employers and social partners and the view expressed by all groups was that this programme was focused very much on labour market needs and the needs of professional pharmacists working across the sector.

The clear learning outcomes are grouped in four broad areas:

- Knowledge and its application: these outcomes cover 1) the ability to understand, critically, the scientific principles underpinning the discipline and also provide students with 2) the underpinning knowledge of medicines and how they are manufactured and 3) the effects of medicines;
- Research skills: these outcomes equip students with a critical understanding of pharmaceutical research and the ability to undertake research at master's level;
- Subject-specific skills: these outcomes cover medicines manufacture, pharmaceutical technology and the ability to dispense medicines in a safe and effective and in such a way that medicine can be understood by patients;
- Social skills: Building on the previous set of learning outcomes, student will be equipped with the skills necessary to practise as a pharmacist in a socially and ethically responsible way, recognising the diversity of patients and their needs. This will be undertaken working as part of wider healthcare teams; and
- Personal skills: recognising that students will be working at master's level towards the end of the programme, students are equipped with the ability to work in changing and unpredictable environments (an important characteristic of work at that level) and also to manage their own personal development.

The team agreed that the learning outcomes were consistent with the exit level of the programme, level seven (master's level), and that as a set they accurately described the knowledge and skills required on graduation to then practise as a pharmacist. The team noted LSMU's desire to place greater emphasis on the application of knowledge, a theme that was raised by students and social partners.

The team did note that for each learning outcome there was a surprisingly large number of contributing areas. For example, 8. 'Will have knowledge about physical, chemical, biological and microbiological researches and will be able to produce and analyse pharmacy products' had contributions from 19 areas, which the team agreed was probably excessive. LSMU may wish to consider whether this is a fully accurate mapping of learning outcomes and disciplines.

2.2. Curriculum design

The pharmacy study programme at LSMU is an integrated master's degree, which educates graduates to enter the regulated profession of pharmacist. The program conforms to European and national requirements, and it is designed according to:

- European Directive for regulated profession (2005/36EC and 2013/55EC);
- The Order of Research and study of the Republic of Lithuania;
- Regarding approval of General requirements for integrated and degree conferring first level study programmes;
- Regulations of EHEA, defined in Bologna process for integrated study; and
- Pharmacy field descriptor, which makes a clear distinction between full time 5-yr integrated study programmes leading to a qualification, degree of Master of Pharmacy, and a college study programme of 3yrs leading to qualification, degree of professional Bachelor of Pharmacy.

The curriculum is designed in such way that vertical linkage is clearly visible between different fields of knowledge, with their integration into more complex areas towards the end of the programme. At the end of the programme, there is a final pharmacy practice course and the production of a master's thesis master thesis.

The curriculum covers:

- General and inorganic chemistry, organic chemistry, pharmaceutical chemistry, chemistry of drugs into pharmacology, development of pharmaceutical products and toxicology;
- Basic biology, microbiology, pharmaceutical botany and practice of cultivation of medicinal drugs, pharmacognosy, biopharmaceutics, pharmaceutical biotechnology into development of pharmaceutical products, pharmacology and management of diseases;
- Basic biology, anatomy, physiology, pathophysiology, biological chemistry, essential of internal disease into disease management and pharmaceutical care;
- Appl. physics, pharmaceutical technology, biopharmaceutics, pharmaceutical biotechnology into development of pharmaceutical products, management of diseases and pharmaceutical care;
- Basics of health care, first medical aid, nursing, basics of pharmaceutical practice, pharmacy history, disease management into pharmaceutical care and social pharmacy.

Students can also select elective subjects, some of which are closely related to pharmacy whereas others are of a more general nature.

In the first year, and in a new module, students are introduced to anatomy, physiology and pathophysiology. This combination is classic approach (first anatomy, then physiology and finally pathophysiology). The module is linked to biochemistry, which is delivered in the 4th semester. The team noted that teaching biochemistry after physiology was unusual but also that there was a rationale for doing so: that 'knowledge of human physiology is a requirement to

provide and understanding of biochemical processes that occur in human organism'. The team noted further that this was an unusual interpretation of the link between the two subjects.

Students told the visiting team that they did not have any problem with understanding progression from one year to the next or with vertical subject linkage. They clearly compared years of study and the progression between subjects: for example, 1st year – basic, 2nd – chemistry, 3rd – drugs, 4th – pharmacology, 5th – more detailed chemistry and pharmacy practice. Or explained another way: a general introduction in the 1st year with philosophy, psychology, 2nd year in greater depth, with the 2nd year and 3rd year more focused on hard sciences, the 4th year deepens the students' understanding of medicine (at the molecular level), and, finally, all information is drawn together and focused around the patient.

Students and alumni mentioned some overlapping of Biological chemistry with Drug chemistry. Since subject of Pathophysiology is new (having been taught for only two years) the academic team might like to reconsider the connectivity/vertical linkage between Pathological physiology and Biological chemistry on one side and Biological chemistry and Drug chemistry on the other.

Students told the visiting team that they had noticed a significant change in the style of teaching and learning between the gymnasium/school and university.

Programme study design is in accordance with EHEA regulations: the programme is defined in the Bologna process as an integrated master programme of 5 years' duration, including four years of full-time theoretical and practical training at a university and six-month traineeship in a pharmacy (a requirement of EC Directive 2005/36). It also conforms with study credit requirements: (30 ECTS per semester, 300 together) and with the evaluation by students put to the visiting team about work load (weekly load with contact hours and self-study hours). The content is in agreement with Pharmacy Field descriptor and supports development of 10 main competences of graduates (preparation of the pharmaceutical form of medicinal products, manufacture and testing of medicinal products; personalized support for patients who administer their medication, etc.). There is a clear transition between general subjects to specific subjects.

The programme includes 6-months practice in a pharmacy in accordance with EC Directive 2005/36. The six months must be focused on direct access to the patients and pharmaceutical care. Meetings with students during the 6 months are arranged by the Faculty. There is a list of pharmacies from which students can choose placements across Lithuania.

A wide spectrum of teaching methods are used: lectures (the whole class or half classes), presentations, discussions in small groups, laboratory practicals, practical pharmacy practice sessions and other methods. Students are satisfied with the balance between the theory and practice (after every theoretical session there is a related practical class). The duration in the practical classes is usually 3 hours and intercalated with the theoretical classes, depending on the day. The number of students in groups in pharmacy is 12.

Groups met by the visiting team (alumni, students, social partners) agreed that students were equipped with relevant knowledge and skills and the infrastructure of the organisation (pharmacy facilities, the library etc...) helped them achieve this. Alumni did comment that know they had been able to reflect on their university experience, it might have been useful to have been exposed to subjects more closely related to their work, specifically clinical pharmacy, pharmacology, marketing/business/leadership skills and communication skills.

Main vertical linkage of subjects for developing research skills (Introduction to studies, Statistics, informatics and basic of scientific research, Scientific research practice) are supported by elective subjects and field specific subjects for which excellent laboratory equipment is available, finalizing in master thesis. Master thesis are small research works with clear scientific methodology: examples of theses seen by the visiting team covered surveys about the health system and experimental work on themes from pharmacognosy, analytical chemistry, biochemistry, technology, drug dosage forms and pharmaceutical chemistry.

2.3. Teaching staff

The composition of academic staff delivering the programme complies with all requirements of legal acts. Professors and associate professors make approximately 59 % of total number of academic staff. All teachers have obtained PhD degree. As was stated during the visiting team's meeting with senior administration academic staff may work for no more than one year without a PhD. 62.5% of all teachers on pharmacy study programme indicated LSMU as their main working place (SER, p.18). Lecturers from other Lithuanian and/or foreign higher education institutions contribute to the programme on an occasional basis.

The qualifications of the staff, as well as their research output are sufficient to ensure achievement of the learning outcomes. The teaching staff has as an average of 17 or more years of pedagogical work experience and more than 15 years average of practical work experience is in the field of pharmacy. As it was mentioned during meeting with academic staff, some lecturers are graduates from the Faculty of Pharmacy, who have been invited to stay after finishing their doctoral studies. "The scientific qualification of the personnel is developed through scientific research and sufficient numbers of scientific publications" is highlighted as one of the strength of the teaching staff in the Pharmacy programme. A focus on the quality of publications, as well as participation in international scientific research, science internships is visible.

The SER included full CVs of staff contributing to the programme and includes significant publications from the last five years for each one.

Teachers are certified at least once every 5 years in line with all requirements of legal acts.

Experienced staff act as Master's thesis supervisors. Master's thesis supervisors have doctoral degrees and practical experience in the fields of the subjects they teach. On the average, each Master's thesis supervisor has 6 students.

The number of the academic staff is suitable to appropriate for delivering the expected learning outcomes and the number of teaching staff is stable. The main reasons for the turnover of teachers is retirement and maternity (SER p.19).

The staff/student ratio was evaluated as optimal and sufficient during meeting with academic staff. The number of students during lecture can reach 80. The students are divided into groups during practical work: each group consists of 12 - 14 members. The number of students per teacher during the assessment period is slightly increased and reached 2.65 enrolled students during 2016-2017 academic years.

The University ensures conditions for the professional upgrading of staff, who are guaranteed with the opportunity to improve their qualifications in Lithuania and abroad. The LSMU Centre for Teachers' Educational Competence (CTEC) carries out continuous monitoring and improvement of the LSMU teachers' educational competence. During the periodic re-evaluation

of academic staff one of the criteria used to assess them is the improvement of teachers' educational competence.

As part of their continuing professional development, staff participate in national and international events, including conferences, seminars and intensive training programmes (with conferences and seminars being the most popular kinds of CPD). Participation in research projects that have won the financing competition is available as well. Staff are also members of the editorial boards of several scientific journals.

The academic staff have a possibility to participate in Erasmus and others exchange programmes in order to and go to universities of the EU countries. During the assessment period, teachers working in the programme went to various EU and other foreign institutions on 24 occasions (SER, p. 22) The international mobility of academic staff is appropriate for this kind of study programme and institution. During the assessment period 19 teachers of the Faculty of Pharmacy visited other universities or research centres in Latvia, Poland, Ukraine, the Czech Republic, Spain, Finland and USA.

2.4. Facilities and learning resources

The programme is located in a new building (built in 2014) with modern facilities, including space for different activities like lectures, seminars, laboratory work, student recreation areas and personal study areas. The number of students in groups for laboratory work is 12, and laboratories and other places are sufficient for the work undertaken. Students feel well catered for in laboratories. Nevertheless, the working day schedules for groups of students are quite demanding, sometimes from 8.00 to 19.00. Time for individual study is included in this time. The library is available for study purposes and is open 7 days per week, including 24h from Monday to Friday.

The core textbook stock in the library covers the major subjects taught in the programme. Besides the printed books, e-books are also available. The library has an integrated search engine that allows searching for LSMU library resources, the Lithuanian Academic Electronic Library subscription databases and other electronic resources. The electronic catalogue reflects all textbooks and educational literature, all periodicals and all the dissertations in full. Remote access via VPN is possible. The plagiarism detection system URKUND is used.

Laboratories are equipped with up-to-date equipment. Laboratories for pharmaceutical technology & biopharmacy have excellent equipment for students, allowed their research work across a wide spectrum of activities like formulations, dosage form, stability and dissolution. Also, students are able to take advantage of LSMU's on-site pharmacy which has good manufacturing practice facilities. Pharmacy history teaching takes place in the institution's pharmaceutical museum, which is in the centre of Kaunas and open to the public. The visiting team agreed that this unique museum was a very special place in which to learn about the history of pharmacy.

Student pharmacy practice placements are organized at pharmacies across Lithuania. The faculty has its own requirements for pharmacies to be selected and it monitors their quality. Students can select their placement sites from a list of pharmacies in Lithuania and also can undertake their placements in suitable pharmacy locations overseas. Student can change placements if necessary but the visiting team was told that this was rare. It is a requirement of EC Directive 2005/36 that there must be six months of patient facing placement work within the five years of initial education and training as a pharmacist but students do also secure placements in other sectors such as the pharmaceutical industry/manufacturing.

Students have access to laboratory equipment and chemicals and do not need to buy anything for their laboratory work.

2.5. Study process and students' performance assessment

Students are accepted to this study programme with the rules of the general admission, which is carried out by LAMA BPO. The competition score for the two types of financing experimented a slight change during the period under assessment.

The organisation of the study process ensures proper implementation of the programme and achievement of the intended learning outcomes, as demonstrated by the programme schedule. It was clear that students have a clear understanding of the different phases of the programme. In the meetings with social partners, alumni and students, possible revisions to the programme were discussed, particularly the amount of pharmacology, clinical pharmacology and pharmacy practice. The visiting team noted that the previous SKVC visiting team had raised the same issue, which was ongoing (and reflected the broad changes in pharmacy practice in Lithuania and elsewhere). Also, management, leadership, business skills and communication skills were raised as being desirable: again the team noted that this reflected general trends in the pharmacy profession in Lithuania and elsewhere.

Students are able to take a part in research in different departments and when writing their master thesis and the facilities in pharmacy's new buildings have enabled the Faculty to offer research opportunities across a wide range of scientific areas. The visiting team had the opportunity to review a range of final theses and noted that there was an appropriate spread of topics, ranging from laboratory-based ones to patient-based pharmacy practice ones.

Students have possibility to participate in the EU's Erasmus exchange programme, but the number of students studying overseas (and the number visiting LSMU to study pharmacy) is comparatively low: from 2012-13 and 2016-17 the number varies between 6 and 15 students per year (between 1.21 and 3.03% of the total student population). The SER acknowledged this as a weakness and something that LSMU wanted to improve. The visiting team noted this.

In the first semester students take the "Introduction to studies" course that introduces them to the aims and the objectives of the programme as well as assessment requirements. Students are assessed through a variety of methods which the visiting team agreed were appropriate for the learning outcomes being assessed all necessary information is available on the university's website. It was confirmed by the students that they can also get information from the teachers of different departments easily because they are accessible, both by email and in person.

To ensure there is consistency between modules, there is a close correlation between the content and credit volume of modules. As appendices to the SER, LSMU provided detailed course unit specifications which show the link between learning outcome, delivery methods ('course unit methods') and assessment. Each specification includes assessment methods, the weighting of each method and the criteria for assessment. The majority of the assessment criteria were quite general (examples being 'completeness/fullness' and 'evaluation of test results') and it was not clear how they were objective criteria and whether they referred to the pass/fail boundary or to levels of achievement (a bare pass/fail, a good pass, very good pass etc...). The visiting team did note that the SER did point out that LSMU viewed the delivery methods of the programme as being quite traditional. This may be something a future visiting team might like to examine.

There are a wide range of services on offer to students including health services, help with accommodation and state financial aid.

It was clear to the visiting team that social partners, employers and alumni all agreed that the programme as currently constructed and delivered produced graduates who were fit for purpose as pharmacists

In the meeting with students, it was confirmed that they are provided opportunities to challenge assessment results by submitting appeals to the administration of the LSMU, in accordance with LSMU regulations.

2.6. Programme management

2.6.1. Internal Organization

Programme management and decision-making take place at several levels: the university (legal acts of the Ministry of Education and Science and decisions of the LSMU Senate), faculty (by the council of the pharmacy faculty and the dean), and department.

The control and supervision of the programme's delivery, as well as periodic revision of the programme, is undertaken by the Committee of Pharmacy Studies, which is subordinate to the faculty dean and composed of teachers, social partners and students. The heads of the departments are responsible for the delivery of the study plan, which is the interface between the teachers/teaching process, the Committee of Pharmacy Studies and the dean.

There was evidence that LSMU had used previous external evaluations to improve the programme: appendix 6 of the SER listed the recommendations from previous visits and how they had been addressed. However, regarding routine improvement through managing processes, the SER did not really provide examples. There were detailed descriptions of how programme management operated at the various levels within the institution but little information on outcomes. In future SER submissions LSMU may wish to shifting the balance in the document away from describing processes towards describing outcomes and change.

2.6.2. Quality Assurance

The Study Quality Monitoring and Improvement Commission oversees the quality assurance of programmes at LSMU, which occurs at various levels within the institution.

The programme evaluation and improvement processes involve the students, through the administration of questionnaires and by the Committee of Pharmacy Studies, and social partners, as they belong to the pharmacy Faculty Council and Committee of Pharmacy Studies. In addition they participate in the defence of final theses, participate in the assessment of pharmacy practice placements and attend occasional meetings about the programme. Graduates also take part in this process through the LSMU career centre, participating in different events such as careers days and community events.

Information about the study programme is publicly presented in the LSMU website and is accessible to everyone, both internally and externally.

In the meeting with students, the visiting team discussed why participation rates in surveys was particularly low. Students told the visiting team that they did not regard surveys as being particularly important because they were broadly content with the programme. While the team

noted that students were content it did reflect back to LSMU that there seemed to be limited value in running an evaluation systems if it was neither used not valued by students.

III. RECOMMENDATIONS*

1. Because students do not engage with the feedback and evaluations systems, LSMU should consider how this could be addressed so that meaningful feedback can be collected and acted on;
2. The team should consider how feedback from student representatives could most effectively be considered by Committee of Pharmacy Studies (because there is no formal link between them currently); and
3. LSMU should continue to review the curriculum, specifically in relation to the coverage of pharmacology, clinical pharmacology and pharmacy practice (as was recommended by a visiting team in 2011) and also management, leadership, people skills and human resources. This is to reflect the changing profile of pharmacy.

In this report, the team has not commented on most of the self-identified weaknesses in the self evaluation report by the University, because the team assumes that they will be addressed by the LSMU as part of routine quality assurance but would recommend that when the next SKVC team visits, this is checked.

IV. SUMMARY

Programme aims and learning outcomes: The main positive aspect of the aims and learning outcomes is that they align well to the needs of the labour market and the needs of pharmacy. The visiting team heard from all stakeholders that the programme produces graduates who are fit to work as pharmacists in Lithuania, as described in the programme's aims and learning outcomes.

Curriculum design: Curriculum design is in accordance with the requirements of the EHEA for integrated Master's degrees. The content of the subjects delivered corresponds to the 2nd cycle of study and to the Field descriptor for Pharmacy. Stakeholders, alumni, teachers and students recognized and confirmed that the programme supports graduates to be fully prepared for the labour market. Students understand progression and development well across the five years of the programme, and the purpose of the component parts.

In addition the programme has been designed in accordance with the requirements of EC Directive 2005/36 (and successor versions). The directive requires a 6-month internship/period of practical pharmacy practice be '... in a pharmacy which is open to the public or in a hospital, under the supervision of that hospital's pharmaceutical department'. This is provided by an extensive network of pharmacies across Lithuania and abroad.

Teaching staff: According to the following criteria such as composition, qualification, number, turnover, professional upgrading teaching staff was evaluated as well defined and appropriate for delivering well the learning outcomes of the programmes. Based on the SER and supporting documentation, there is evidence that research is a strength in pharmacy and that many staff are research active. To be specific, the CV from each member of staff was provided to the visiting team and each one included significant publications from the previous five years.

Facilities and learning resources: Pharmacy benefits from very modern and well equipped facilities. The laboratories are modern as is the library and a considerable improvement on the facilities available to pharmacy at the time of the previous SKVC expert visit in 2011. Learning resources (including e-resources) are good and the library offers a good study environment for students.

Facilities and learning resources are strength of the programme.

Study process and students' performance assessment: The visiting team noted that the study process was clear to students, who knew where to seek advice when needed. The assessment scheme was clear and appropriate for the learning outcomes of the programme.

The visiting team noted that the topics of final theses were varied and ranged from laboratory-based scientific ones through to pharmacy practice/health systems ones. The visiting team also noted that practising pharmacists external to LSMU participate in the defence of theses.

Programme management: LSMU has a multi-layered management structure, as is usual in such institutions. No examples of changes being made to the programme as a result of the management structure were given in the SER and the visiting team was not given many examples during meetings either. This may have been an oversight, but in future it might be helpful for LSMU to consider how it could demonstrate the effectiveness and responsiveness of its programme management structure in the SER.

The visiting team did note that students did not really engage with LSMU's evaluation system and suggest that this should be reviewed, if it is actually a waste of resources.

V. GENERAL ASSESSMENT

The study programme *Pharmacy* (state code – 6011GX003) at Lithuanian University of Health Sciences is given **positive** evaluation.

Study programme assessment in points by evaluation areas.

| No. | Evaluation Area | Evaluation of an area in points* |
|-----|--|----------------------------------|
| 1. | Programme aims and learning outcomes | 3 |
| 2. | Curriculum design | 3 |
| 3. | Teaching staff | 3 |
| 4. | Facilities and learning resources | 4 |
| 5. | Study process and students' performance assessment | 3 |
| 6. | Programme management | 3 |
| | Total: | 19 |

*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: | Damian Richard Day |
| Grupės nariai: Team members: | Prof. dr. André RTS Araujo |
| | Prof. dr. Borut Božič |
| | Ms Rasa Radžiūnienė |
| | Ms Vygailė Pundzaitė |

**LIETUVOS SVEIKATOS MOKSLŲ UNIVERSITETO VIENTISŪJŲ STUDIJŲ PROGRAMOS
FARMACIJA (VALSTYBINIS KODAS – 6011GX003) 2018-01-19 EKSPERTINIO VERTINIMO IŠVADŲ
NR. SV4-4 IŠRAŠAS**

V. APIBENDRINAMASIS ĮVERTINIMAS

Lietuvos sveikatos mokslų universiteto studijų programa *Farmacija* (valstybinis kodas – 6011GX003) vertinama **teigiamai**.

| Eil. Nr. | Vertinimo sritis | Srities įvertinimas, balais* |
|---------------------|--|---|
| 1. | Programos tikslai ir numatomi studijų rezultatai | 3 |
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* 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)

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IV. SANTRAUKA

Studijų programos tikslai ir studijų rezultatai. Pagrindinis teigiamas programos tikslų ir studijų rezultatų aspektas yra tas, kad jie puikiai atitinka darbo rinkos ir farmacijos poreikius. Ekspertų grupė iš visų dalininkų išgirdo, kad vykdant šią studijų programą parengiami absolventai, tinkami dirbti farmacininkais Lietuvoje, kaip aprašyta programos tiksluose ir studijų rezultatuose.

Programos sandara. Programos sandara atitinka Europos aukštojo mokslo erdvės reikalavimus, nustatytus vientisųjų studijų magistro laipsniui. Dėstomų dalykų turinys atitinka antrąją studijų pakopą ir *Farmacijos* krypties aprašą. Dalininkai, alumnai, dėstytojai ir studentai pripažino ir patvirtino, kad ši studijų programa padeda absolventams visiškai pasirengti darbo rinkai. Studentai gerai supranta pažangą ir tobulėjimą per visus penkerius studijų programos metus ir jos sudedamųjų dalių tikslą.

Be to, programa sudaryta pagal EB direktyvos 2005/36/EB reikalavimus (ir vėlesnes jos versijas). Direktyvoje reikalaujama šešių mėnesių praktika „visuomenei skirtoje vaistinėje arba ligoninėje, prižiūrint tos ligoninės farmacijos skyriui“. Tai platus vaistinių tinklas visoje Lietuvoje ir užsienyje.

Personalas. Dėstytojai įvertinti pagal šiuos kriterijus: sudėtis, kvalifikacija, skaičius, kaita, profesinis tobulėjimas, taip pat jų tinkamumas dėstyti ir pasiekti šios studijų programos studijų rezultatus. Vadovaujantis savianalizės suvestine ir papildomais dokumentais matyti, kad farmacijos moksliniai tyrimai stiprūs ir daugelis dėstytojų aktyviai dalyvauja mokslinių tyrimų veikloje. Dar tiksliau, ekspertų grupei buvo pateikti visų dėstytojų gyvenimo aprašymai (CV) ir kiekvienoje jų buvo nurodyta nemažai publikacijų per pastaruosius penkerius metus.

Materialieji ištekliai. Studijų programa *Farmacija* vykdoma labai šiuolaikiškose ir gerai įrengtose patalpose. Laboratorijos, kaip ir biblioteka, šiuolaikiškos. Nuo ankstesnio SKVC ekspertų vizito 2011 m. žymiai pagerėjo farmacijai skiriamos patalpos. Metodiniai ištekliai (taip pat ir elektroniniai ištekliai) geri, o biblioteka garantuoja studentams gerą mokymosi aplinką.

Patalpos ir metodiniai ištekliai yra programos stiprioji dalis.

Studijų eiga ir studentų veiklos vertinimas. Ekspertų grupė pastebėjo, kad studijų eiga studentams aiški, jie žinojo, kur reikia kreiptis pagalbos. Vertinimo sistema aiški ir tinkama programos studijų rezultatams pasiekti.

Ekspertų grupė pastebėjo, kad baigiamųjų darbų temos įvairios – nuo laboratorinių mokslų iki farmacijos praktikos ir (arba) sveikatos sistemų, taip pat, kad baigiamųjų darbų gynimo procese dalyvauja praktikuojantys, bet LSMU nedirbantys farmacininkai.

Programos vadyba. Kaip įprasta tokiose institucijose, LSMU vadybos struktūra daugiasluoksnė. Savianalizės suvestinėje nebuvo pateikta jokių pavyzdžių apie šios studijų programos pokyčius, kuriuos būtų sąlygojusi vadybos struktūra. Per vizitą buvo pateikta nedaug pavyzdžių. Tai galėjo būti dėl nepastebėjimo, tačiau ateityje LSMU galėtų apsvarstyti, kaip savo studijų programos vadybos struktūros veiksmingumą ir grįžtamąjį ryšį atskleisti savianalizės suvestinėje.

Ekspertų grupė pastebėjo, kad studentai iš tikrųjų nedalyvauja LSMU įvertinimo sistemoje, todėl rekomenduoja šį klausimą apsvarstyti, jei iš tikrųjų tai yra išteklių švaistymas.

III. REKOMENDACIJOS

1. Studentai neįtraukti į grįžtamojo ryšio ir vertinimo sistemas, todėl LSMU turėtų apsvarstyti, kaip šį klausimą spręsti, kad būtų galima gauti tinkamą grįžtamąjį ryšį ir į jį reaguoti.
2. Personalas turėtų apsvarstyti, kaip Farmacijos studijų komitetas galėtų veiksmingiausiai atsižvelgti į studentų atstovų grįžtamąjį ryšį (kadangi šiuo metu tarp jų formaliai nustatyto bendravimo nėra).
3. LSMU turėtų ir toliau peržiūrėti studijų turinį, ypač susijusį su farmakologijos, klinikinės farmakologijos ir farmacijos praktikos aprėptimi (kaip rekomendavo 2011 m. apsilankiusi ekspertų grupė), taip pat vadybą, lyderystę, žmonių įgūdžius ir žmogiškuosius išteklius. Tai turėtų atspindėti kintantį farmacijos profilį.

Šiose vertinimo išvadose ekspertų grupė nepateikė komentarų apie daugelį silpnų aspektų, kuriuos nustatė ir savianalizės suvestinėje nurodė pats universitetas, nes mano, kad LSMU juos spręs kaip įprastos kokybės užtikrinimo veiklos dalį, tačiau rekomenduoja, kad šis klausimas būtų išspręstas iki kito SKVC ekspertų grupės vizito.

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Paslaugos teikėjas patvirtina, jog yra susipažinęs su Lietuvos Respublikos baudžiamojo kodekso 235 straipsnio, numatančio atsakomybę už melagingą ar žinomai neteisingai atliktą vertimą, reikalavimais.

Vertėjos rekvizitai (vardas, pavardė, parašas)