



Kauno kolegija
Gauta

2009-01-16 Nr. (1.14)-CO-389

STUDIJŲ KOKYBĖS VERTINIMO CENTRAS

Valstybės biudžetinė įstaiga; duomenys Juridinių asmenų registre: kodas – 111959192; adresas – Suvalkų g. 1, LT-03106 Vilnius; tel. (8-5) 2104777, faks. (8-5) 2132553, <http://www.skvc.lt/>, el. p. skvc@skvc.lt, a. s. LT35 7300 0100 0245 6921, „Hansabankas“

Kauno kolegijai

2009-01-13 Nr. 4-93

DĖL IŠORINIO IŠSAMIOJO VERTINIMO IŠVADŲ

Vadovaudamiesi Mokslo ir studijų institucijų vertinimo taisyklių (Žin., 2008, Nr. 65-2467) 17.4 punktu, siunčiame ekspertų grupės parengtas farmacijos krypties studijų programos *Farmakotechnika* (valstybinis kodas – 65309B102) vertinimo išvadas.

Informuojame, kad šios vertinimo išvados buvo svarstytos Studijų vertinimo ekspertų tarybos, veikiančios pagal Lietuvos Respublikos švietimo ir mokslo ministro 2008 m. lapkričio 24 d. įsakymu Nr. ISAK-3218 (Žin., 2008, Nr. 138-5460) patvirtintus Studijų vertinimo ekspertų tarybos nuostatus, 2008 m. gruodžio 19 d. posėdyje. Išnagrinėjus ekspertų grupės pateiktas išvadas buvo nuspręsta neuniversitetinių studijų programą *Farmakotechnika* (valstybinis kodas – 65309B102) akredituoti be sąlygų.

Studijų kokybės vertinimo centras, atsižvelgdamas į Mokslo ir studijų institucijų vertinimo taisyklių (Žin., 2008, Nr. 65-2467) 50 punktą ir vadovaudamasis Aukštojo mokslo studijų programų akreditavimo tvarkos aprašo (Žin., 2005, Nr. 123-4403) 2 punktu, teiks Lietuvos Respublikos švietimo ir mokslo ministerijai siūlymą dėl įvertintos studijų programos akreditavimo.

PRIDEDAMA:

1. Kauno kolegijos farmacijos studijų krypties neuniversitetinių studijų programos *Farmakotechnika* išorinio išsamiojo vertinimo išvados, 8 lapai;
2. Studijų vertinimo ekspertų tarybos 2008 m. gruodžio 19 d. protokolo Nr. 7-5 išrašas, 1 lapas.

Direktorius

Eugenijus Stumbrys

STUDIJŲ VERTINIMO EKSPERTŲ TARYBA

POSĖDŽIO PROTOKOLAS

2008-12-19 Nr. 7-5

Vilnius

Posėdis įvyko 2008 m. gruodžio 19 d.

Posėdžio vieta: Vilnius, Studijų kokybės vertinimo centras, Suvalkų g. 1.

Posėdžio laikas: 13.00-18.00 val.

Posėdžio pirmininkas Jonas Ruškus

Posėdžio sekretorė Grytė Staskevičiūtė

Dalyvavo Tarybos pirmininkas Jonas Ruškus, Tarybos nariai: Juozas Atkočiūnas, Vytautas Daujotis, Kęstutis Dubnikas, Jonas Gudmonas, Rimantas Jankauskas, Onutė Junevičienė, Vytautas Juščius, Juozas Kulys, Daina Lukošūnienė, Henrikas Mykolaitis, Vida Staniulienė, Marijonas Rimantas Urbonavičius.

Posėdyje taip pat dalyvavo: Studijų kokybės vertimo centro direktorius E.Stumbrys, Studijų vertinimo skyriaus vedėjas A.Šerpatauskas, Centro darbuotojos vyr. specialistės R.Šlikaitė, D.Jelinskienė, ekspertai D.Lepaitė, A.Krotkus, atstovai iš Vilniaus pedagoginio universiteto M.Pauza, N.Čėnas, V.Gefenas.

DARBOTVARKĖ

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4. Farmacijos studijų krypties programų išorinio išsamiojo vertinimo išvadų svarstymas.

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4. SVARSTYTA. Farmacijos studijų krypties programų išorinio išsamiojo vertinimo išvados.

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NUSPŪSTA:

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2. Kauno kolegijos neuniversitetinių studijų programą *Farmakotechnika* (65309B102) akredituoti be sąlygų. Už šį sprendimą balsavo 12 Tarybos narių, 1 Tarybos narys nebalsavo dėl galimo interesų konflikto.

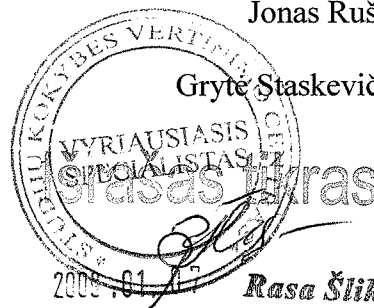
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Posėdžio pirmininkas

Posėdžio sekretorė

Jonas Ruškus

Grytė Staskevičiūtė



2008.01.17

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Rasa Šlikaitė

KAUNAS COLLEGE

Final Assessment Report

Programme under assessment:
Pharmacy technique 65309B102

2008

1. Introduction

Title of study programme	Pharmacy technique
State Code	65309B102
Kind of study ¹	NU
Mode of study ² (duration in years)	F (3)
Volume of study programme in credits	120
Degree and/or Professional qualification to be awarded	Pharmacy professional bachelor degree, professional qualification of the assistant of pharmacist (pharmacy technician)
Programme registration date, order No.	29 08 2001 order No. 1234

This assessment report has been produced as follows: The members of the Expert Group received the self-evaluation report of the programme in April 2008. The Expert Group discussed the contents of the self-evaluation report at their first meeting on May 6, 2008 and produced a draft report. The Expert Group conducted a site visit to Kaunas College on May 7, 2008, where the experts were able to view the facilities and equipment of relevance to the programme. The Experts met with members of the administrative and academic staff of the institution, current students, recent graduates and employers of graduates of the programme. The responses to the questions posed were documented and discussed among the experts, and this discussion informed the preparation of this Assessment Report, which represents the opinions of expert group as a whole.

Kaunas College was founded in 2000 and was accredited as a non-university school in 2005. This is the first international evaluation of the pharmacy technique study programme, which is one of 43 study programmes offered by the College. The pharmacy technique study programme has been developed in accordance with the relevant standards set out by the Ministry of Education and Science, and also through contact with different areas of pharmacy practice.

2. Aims and Goals of Study Programme

The aims of the Bachelor programme in Pharmacy Technique is to provide students with the knowledge and skills necessary to work as a pharmacy technician in the various sectors of pharmacy practice; community, hospital, and industrial (manufacturing) pharmacy. The study programme should meet the requirements of the Pharmacy Law of the Republic of Lithuania as per document No X-709 dated 22/6/2006.

¹ NU – Non-university studies; U – undergraduate studies; M – master studies; SP – special professional studies; I – integrated studies;

² F – full-time; PE – part-time (evening); PX – part-time (extramural).

3. Analysis of Programmes

3.1 Structure, contents and study methods

According to the self evaluation report the *Composition of the Programme* relates the theoretical studies to practice studies modules. The duration of Pharmacy technique study programme is 3 years, two semesters in each year. The curriculum is composed of compulsory subjects (general subjects 32 credits; special subjects 54 credits) and elective subjects (6 credits). Practical training on internship makes 22 credits; final examination and final thesis make 6 credits, i.e. 120 credits in total.

Within the 1st year more attention is paid to general education subjects together with a few special subjects such as Analytical chemistry, Medicine technology and Medicine production technology. The subjects of the 2nd year and the autumn semester of 3rd year, for instance Pharmacognosy, Pharmaceutical chemistry, Pharmacology and Clinical pharmacy, are more oriented to the professional qualification. The internship in pharmacies during spring semester of 3rd year covers the practical part of a curriculum, makes 18.3 % of the programme and develops practical skills of the students.

Self-study, i.e. independent student learning activities include theoretical studies, preparation for mid-term tests, course papers and projects, semester work, preparation for a laboratory work, writing papers, preparing the reports of professional activity practice, preparations for seminars and presentations, and solving clinical situations.

3.2. Execution of studies and support for students

In the self-assessment material, lectures, discussions, debates, practical classes, group work, paired work, case-study, visits, trips, document and statistical analysis, exhibitions of students' works, individual task performance, self-study, etc. were listed as teaching methods. During the site visit, lectures and practical exercises were identified as major methods, both corresponding to about 50 % of the studies. Also case studies are employed especially in practical training. In independent self-studies students prepare themselves for the laboratory work prior the actual work, which is very useful. The assessment group was especially impressed on the integrated self-studies, where students combine different disciplines and study subjects creating multidisciplinary approach in their projects.

Students' learning achievements are tested using various methods, but the traditional written examination remains the major method of assessment. The students have also a final examination and final thesis preparation before the graduation. The final thesis comprises both a theoretical literature review and practical part, which in most cases is an interview of clients or patients on an appropriate topic. Experimental laboratory work is not usually employed in final thesis. After examining some examples of final works, the assessment panel found them to be formally adequate for pharmacy technician degree. The evaluation process of final examinations and thesis is very laborious employing qualification board of at least 5 members each giving separate assessment of individual works.

The students were satisfied with the execution of their studies, and the academic support they receive from teachers and staff. They felt that teachers are easy to approach and that they listen their concerns and suggestions. However, there is no official system to collect feedback from the students or body for the teachers and students, in which they could together discuss the issues on the study programme.

3.3. Variation in the number of students

According to statistics, the interest in the pharmacy technique programme has decreased slightly over the last 5 years. However, the acceptance rate has remained between 30-50 % of the primary (class A) applicants, indicating that much more students are applying than can be accepted. Logically with the number of 20 accepted students per year, the total number on students in this 3 year programme has been about 60 during the last three years. However, the attrition rate has been considerable (10-15 %) during the last two years. The reasons for high attrition rate were not identified.

3.4. Teaching staff

Teaching staff consists of 25 teachers involved in study programme, 18 of them as full-time teachers. The lectures are provided by 5 docents and several lecturers. All the teachers have good practical experience on their study subject, but the scientific activity among the staff is low. However, this was considered to be acceptable at college level. Overall, the quality and amount of the staff is sufficient for the execution of the programme. Students are satisfied with the staff, and the assessment panel also found the staff to be very dedicated to the programme and to educating the students.

3.5. Strengths and weaknesses of the programme

Strengths:

- Balance of theoretical and practical courses, with emphasis on practical skills and application of knowledge to practice
- Syllabus covers a wide range of relevant subjects
- Professional internships provide a strong practical base for students to apply their knowledge and skills
- The aims and objectives of the study programme appear to meet the needs of the current labour market, particularly in community pharmacy.
- Wide variety of teaching, learning and assessment methods.
- Use of some teacher-practitioners among teaching staff

Weaknesses:

- College library is lacking in sufficient number of items of special literature.
- Insufficient foreign language skills of teachers and thus limitations in international cooperation
- The chronological order of subject delivery creates “knowledge-gaps” in the more applied subjects. E.g. Medicine production and technology is delivered before the courses in general chemistry and in pharmaceutical chemistry.

- There appears to be no requirement for students to pass one course before progressing to the next course
- Range of optional subjects seem to have little focus on pharmacy
- Key areas of pharmacy practice appear to be missing from syllabus. E.g. pharmaceutical excipients, aseptic preparation, safe-handling of hazardous medicines. Biopharmaceutics is taught mainly within the pharmacology area, but appears to be limited in both breadth and depth.
- Much of the laboratory equipment is now old, lack of key items of equipment for the preparation and testing of dosage forms.

4. Material conditions

The teaching process takes place in 4 classrooms with 30 seats in each, one room with 120 seats, one room with 80 seats, 6 laboratories with 12 work places each. Classrooms are located in several buildings of Kaunas College, they are equipped with overhead projectors, multimedia, audio equipment.

Laboratory equipment is outdated and under these conditions sufficient practical training is complicated and students cannot participate properly in scientific activities and thus obtain their research skills.

There are 22 computers in the computer class. Students might use the computers in the library of Kaunas College Faculty of Health Care (6 items).

The resources of the library of the Faculty of Health Care are limited. The amount of special literature, pharmacy technique periodicals and textbooks is not sufficient.

5. External relations

The Pharmacy Technique Department is cooperating with Kaunas Medical University: scientists from KMU take part in the work of qualification boards of final examinations in Kaunas College, there are teachers exchange between the institutions, the students of pharmacy technique can carry out their professional practice in the training pharmacy of KMU.

The college is cooperating with the Association of Independent Pharmaceutical Enterprises, Professional Union of Lithuanian Pharmacists, pharmacy chains and independent pharmacies, as well as with Botanical garden of VMU.

Together with the colleges in Denmark, Latvia, Germany the department was participating in the Leonardo da Vinci project No. LT/99/1/88113/PI/I.1.1.a/FPI "Development of the pharmacy technique study programme matching European standards" and the cooperation is still going on. Students and teachers are participating in Erasmus exchange programme with Malta, Belgium, Poland, Estonia, Portugal and Turkey, although the rate of participation is currently low.

6. Feedback

Employers constantly take part in preparation, assessment and improvement of the study programme, and also supervise the professional practice of the students. Every year they are invited to take part in the work of the final examination qualification board. Analysis of employers' opinion on employed students is taken into consideration. The employers are satisfied with the practical skills of the graduates, as well as with the theoretical knowledge.

On completion of each subject taught, teachers question the students in order to assess the teaching quality and subject contents. Having evaluated students' opinion, teachers make changes in the subject contents and apply new teaching methods. Graduates are invited to meetings to express their opinion, suggestions, and recommendations for the improvement of the study programme.

7. Internal assurance of study quality

There appears to be no formal procedures for maintaining study quality. The self assessment report of 2007 produced by the programme staff provides a useful review of quality issues, but there is no system to record and document actions taken on deficiencies described in this report. The involvement of employers in the examination qualification boards produces some quality evaluation of student progress and the programme outcomes.

8. General assessment of the programmes within the study field

The expert group is of the opinion that this programme is very important for Lithuanian pharmacy, and the pharmacy technicians in Lithuania receive a good education, which in most parts meets the needs and requirements. The structure of the programme is generally sound. However, because pharmacy as a dynamic part of health care system is under constant development, the programme must also evolve. During the site visit it became evident that the modern pharmacist and pharmacy technician need better knowledge on psychology and better communication skills than provided in the current programme. Also better skills in administration and economy in community pharmacies are required. According to the understanding of the expert group, perhaps the most crucial development is that the programme should shift its focus from traditional study subjects, such as botany and pharmacognosy, towards to modern, evidence based pharmaceutical care. The quantity and quality of teaching staff is appropriate for the programme, but material conditions need some improvements. The teaching staff were very enthusiastic and they provide very good support for the students. The students were clearly engaged and motivated.

8.1. Specific recommendations

- more focus on the study subjects needed for pharmaceutical care. These include pharmacology, drug formulations and their proper use (biopharmacy), clinical pharmacy and communication skills
- less emphasis on botany, pharmacognosy, chemistry
- pharmaceutical technology and pharmacognosy laboratories should be modernized
- library resources need improvement with more textbooks and international pharmaceutical periodicals
- students should be exposed more to english language and textbooks.

8. 2. Proposal for accreditation

Kaunas College non-university study programme *Pharmacy technique* (state registration 65309B102) is given **conditional accreditation**.

Head of the group Graham James Sewell



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Members Ilma Bertulytė



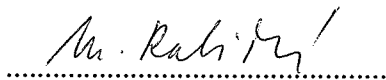
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Jukka Tapani Mönkkönen



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Miloslava Rabišková



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