



STUDIJŲ KOKYBĖS VERTINIMO CENTRAS

Kauno technologijos universiteto
***TAIKOMOSIOS FIZIKOS* STUDIJŲ PROGRAMOS
(612F30007)**
VERTINIMO IŠVADOS

**EVALUATION REPORT
OF *APPLIED PHYSICS* (612F30007)
STUDY PROGRAMME**
at Kaunas University of Technology

Grupės vadovas: Prof. Sven Anders Flodström
Team leader:

Grupės nariai: Prof. Bernard Remaud
Team members:
Prof. Adam Kiss
Doc. Artūras Acus
Dr. Irmantas Kašalynas
Paulius Simanavičius

Išvados parengtos anglų kalba
Report language – English

Vilnius
2013

DUOMENYS APIE ĮVERTINTĄ PROGRAMĄ

Studijų programos pavadinimas	<i>Taikomoji fizika</i>
Valstybinis kodas	612F30007
Studijų sritis	Fizinių mokslų
Studijų kryptis	Fizika
Studijų programos rūšis	Universitetinės studijos
Studijų pakopa	Pirmoji
Studijų forma (trukmė metais)	Nuolatinė (4), iššęstinė (6)
Studijų programos apimtis kreditais	240
Suteikiamas laipsnis ir (ar) profesinė kvalifikacija	Fizikos bakalauras
Studijų programos įregistravimo data	1997 gegužės 19 d.

INFORMATION ON EVALUATED STUDY PROGRAMME

Title of the study programme	<i>Applied Physics</i>
State code	612F30007
Study area	Physical Sciences
Study field	Physics
Kind of the study programme	University studies
Study Cycle	First
Study mode (length in years)	Full-time (4), part-time (6)
Volume of the study programme in credits	240
Degree and (or) professional qualifications awarded	Bachelor of Physics
Date of registration of the study programme	19 May, 1997 (re-registered 2 August, 2001)

© Studijų kokybės vertinimo centras
The Centre for Quality Assessment in Higher Education

CONTENTS

I. INTRODUCTION.....	4
II. PROGRAMME ANALYSIS	6
1. Programme aims and learning outcomes.....	6
2. Curriculum design	7
3. Staff	8
4. Facilities and learning resources	9
5. Study process and student assessment.....	10
6. Programme management	12
III. RECOMMENDATIONS	15
IV. SUMMARY	16
V. GENERAL ASSESSMENT	17

I. INTRODUCTION

The procedures of the external evaluation of Kaunas University of Technology (hereafter – KTU) Bachelor study programme in *Applied Physics* (hereafter – *AP*) were initiated by the Centre for Quality Assessment in Higher Education of Lithuania nominating the external evaluation peer group formed by the head, professor Sven Anders Flodström, professor Bernard Remaud, professor Adam Kiss, dr. Artūras Acus, dr. Irmantas Kašalynas, and Paulius Simanavičius, students' representative.

For the evaluation the following documents have been considered:

1. Law on Higher Education and Research of Republic of Lithuania;
2. Procedure of the External Evaluation and Accreditation of Study Programmes;
3. General Requirements of the First Degree and Integrated Study Programmes;
4. Methodology for Evaluation of Higher Education Study Programmes.

The basis for the evaluation of the study programme was the Self-Evaluation Report (hereafter, SER), its annexes and the site visit of the expert group to the KTU on 21 of May 2013. The visit incorporated all required meetings with different groups: the administrative staff, staff responsible for preparing the self-evaluation documents, teaching staff, students of all years of study, graduates and employers. The expert group evaluated various support services (classrooms, laboratories, library, computer facilities), examined students' final works, and various other materials. After the expert group discussions and additional preparations of conclusions and remarks, introductory general conclusions of the visit were presented. After the visit, the group met to discuss and agree the content of the report, which represents the expert team consensual views.

KTU Bachelor's study programme in *AP* is implemented at the Department of Physics of the Faculty of Fundamental Sciences. *AP* study programme recruits about 20 new entrants each year, mainly from the region of Kaunas, corresponding to about 10% of the total intake of physics students in Lithuania. *AP* study programme is the basis for almost all students, who are continuing their studies in Masters's *Applied Physics* study programme at KTU. Experts' team noticed, that it is highly unusual for Bachelor in *AP* graduate directly enter the labour market. In practise this means that the study time for becoming a working physicist is 6 years or more. This is quite a long time compared to the practices in Europe.

The stable number of 20 entrants in Bachelor *AP* study programme each year is set by the competition and the demand for high quality and motivated entrants, not by the capacity of the Faculty of Fundamental Sciences. The number of students baskets also supports it. It seems, that the staff responsible for the implementation of the study programme is quite comfortable with the number of students from the view of study quality. Moreover it creates conditions for personal and informal interaction between teachers and students, which was especially noticeable concerning highly motivated students. This is the basis for the high quality of the education and also results in a low students dropout rates.

It is necessary to pay attention, that *AP* Bachelor study programme is embedded in an academic quality culture producing high quality graduates, who are, in experts opinion, very competitive in European labour market perspective. This should be the basis for a much higher inwards and outwards mobility than observed during the evaluation of the study programme.

II. PROGRAMME ANALYSIS

1. Programme aims and learning outcomes

One of the main objectives of the Bologna process for higher education is to substitute the design of the curriculum. The traditional programme based approach is replaced by the approach based on the intended learning outcomes, i.e. a shift from the input-based to an output-based approach or the way of thinking.

AP study programme aims are clearly and well defined – "To obtain relevant knowledge in physics and its application, practical skills for physical techniques, abilities to develop modern technologies; to process and critically evaluate the data and results, to obtain practical skills to communicate, to provide information, to work in team, to organize the work, to develop constant professionalism, and uphold the values of higher education". Concerning the study programme aims, during the site visit it became clear, that study programme aims to educate scientists with wide basis in theoretical and experimental physics, who could successfully continue their studies in a more specialized and deeper second cycle. It seems, that the preparation to the entering into the labour market is clearly the second priority. This statement could be verified by the fact, that about 90% of the graduates of the Bachelor study programme apply for Master's studies. However such tendency could not be evaluated purely negatively, because of the reason, that this trend appeared being common in Lithuania labour market.

Concerning the study programme intended learning outcomes (LO's), experts' team noticed, that study programme managers are implementing LO's approach in a right way, however further efforts should be paid seeking to assess, if the intended learning outcomes are achieved. In the SER is provided a thorough description of the study programme intended learning outcomes, which are divided in 5 clusters, respectively: knowledge (A), research abilities (B), subject specific abilities (C), social abilities (D) and personal abilities (E). The links between study programme intended learning outcomes and study subjects are set properly, but it seems, that this information lacks further reflection, especially concerning the clearer assessment methods, if the intended learning outcomes were achieved. Taking into account the standart assessment methods: exams, reports, projects, those are sufficient to assess, that students have achieved A, B, C LO's, but this issue becomes especially relevant, when it is necessary to evaluate, if the intended learning outcomes linked with social and personal abilities (D, E) were achieved. As an example, the reports and works provided to the expert team, clearly showed that most of the times students are evaluated on the scientific and technical contents of their activities. It is necessary to pay attention, that projects are unvaluable means for students to acquire capacities

"to assess the influence of their activity results on economic and cultural development and social environment" or "to the evaluation of their activity according to professional ethics and public spirit".

Generally, the study programme aims and intended learning outcomes are coherent with the type, level of studies, study field and the qualification (Bachelor in Physics) awarded.

The LO's are published on the KTU website and thus are open and available. Experts' team also, would like share their insights, that independently of the strategy study programme managers are following, it might be necessary in the future to introduce the intended learning outcomes related to creativity and innovation to create physicist not only with the fate to become scientist and to raise the next generation of physicists. Furthermore the efforts should be devoted to define the methods for the assessment of the achievement of all types (as excluded in SER) of the intended learning outcomes, taking into account not just study subjects intended learning outcomes, but also study programme intended learning outcomes.

2. Curriculum design

During the evaluation of the curriculum design of the *AP* study programme, the experts' team did not find anything that would be against the legal acts requirements: the duration of the study programme is 4 years for full-time study mode and 6 years for part-time study mode. The scope of the study programme is 240 ECTS credits. Study programme scope for both modes is of the same volume. Curriculum consists of general university study subjects (18 ECTS credits), subjects of the study field (168 ECTS credits), elective study subjects (27 ECTS credits), practices (15 ECTS credits) and final theses (12 ECTS credits). Number of study subjects per semester is not more than 7.

During the meeting with students, some of them expressed their opinion about not even distribution of study subjects in the study programme. At the same time it was reported, that the content of the curriculum itself do not show any repetitions or non-understandable parts. On this point, according to the study plan and study subjects' descriptions, experts team does not noticed any obscurities. However the attention to the students' observations should be paid with the help of the questionnaires performed seeking to know students opinion about the teaching courses.

The content of the study courses is consistent with the study field in which study programme is implemented and with the level of studies. However, the elective part of the curriculum is rather poor. The experts suggest that more various elective subjects should be offered.

Methods of the study subjects are partly appropriate for achieving the intended learning outcomes. Further efforts should be made to a better assessment of general skills, which should be improved during studies. For that reason the experts' team supports the intended action of study programme managers to include the contribution of social partners to the development of study subjects.

The attention also should be paid to the lack of clearness in generating changes in the curriculum. As an example, the experts identified that the simulation of physical phenomena became more important in the last decade. This fact still has not been reflected in the study programme curriculum. Similar developments can happen in other fields of physics and the Study Programme Committee should be able to identify the need for changes and accordingly modify the study programme at the right time.

Overall, despite of minor weaknesses experts noticed, the curriculum is prepared properly, seeking students' achievement of the intended learning outcomes and high quality studies.

3. Staff

The teaching staff of the *AP* study programme consists of: 10 professors, 25 associated professors and 2 PhD students. The staff matches and considerably exceeds the minimum requirements for successful implementation of the study programme.

The staff research activity includes 116 scientific papers published in ISI journals during the period 2008-2013. The conclusion about the staff high qualification is also supported by the fact that 95% of the study subjects of the curriculum are taught by professors and associated professors. A few study subjects are taught by the same lecturer for over 20 years. There is a possibility, that instead of experienced teaching and deep subject knowledge, renewal, improvements and replacements of some parts of the study subject will not happen due to a fading interest and enthusiasm. It also may result in recurring standard questions, tests and exercises that students easily guess in advance and examination does not reflect the achievement of the intended learning outcomes, but rather the learning of the examination tasks. However despite of the mentioned individual case that could be perceived as possibility of threat, generally, the structure of the academic staff by age could be evaluated as quite well balanced and ensuring stable programme implementation.

The data provided in SER about the participation of teaching staff in conferences, seeking professional development of teachers makes it clear that the lecturers have enough possibilities to raise their qualifications, participate in conferences and traineeships both locally and abroad

and also to be active in research. Annually teachers participate in international conferences organized by the Faculty of Fundamental Sciences: “Medical Physics in the Baltic”, “Radiation Interaction with Material and Its Use in Technologies”. They also take part at the “Lithuanian Physics Conference” (2011 - 8 reports) and at various international conferences: 10 teachers present their researches at 15 conferences in 2012. This was fully verified by the teaching staff during the site visit. It means that the scientific quality of the teaching staff ensures that the courses are taught on a high level.

However much more attention should be paid to the teachers’ participation in international mobility programmes. It is commendable, that the managers of the study programme carefully analyses academic staff strengths and weaknesses and remarked, that the problem with staff mobility, also with the lack of familiarity with industrial research programmes exists and tries with a wide international network to solve this problem. However the possibility exists, that in a long-term perspective low teacher mobility rate will demotivate students and this may have an impact in difficulties increasing students’ mobility. It also partially explains why students’ mobility in general is rather low despite of the fact, that the Department of Physics has quite large international network. It was also discovered during the site visit that the documented network, which consists of 18 agreements for Bachelor students and lecturers’ mobility did not match the number reported by students, i.e. 4 suggested positions in the ERASMUS exchange programme.

4. Facilities and learning resources

The SER provides comprehensive information about the facilities involved in the implementation of AP study programme, including 8 modern auditoriums (450 total number of workplaces), 18 laboratories (specified by modules and used for practical and research work), 2 computer classrooms (42 working places), library (27 working places, also students have possibility to use Central Library of KTU) and databases (there are 54 subscribed databases). The visit to KTU confirmed this high standard and quality of experimental equipment and that it is appropriately used.

The experimental equipment for research used in AP Bachelor studies is indeed modern and of highest standards: plasma and plasma chemical etching equipment; magnetron and arc coating systems; equipment for electron-beam evaporation; equipment for thermal evaporation; equipment for processes of diffusion and oxidation; laser interferometer system; X-ray diffractometer; optical microscope; ellipsometer; microspectrometer; Raman spectrometer. Part

of laboratory works is performed at the Institute of Material Science and Lithuanian Energy Institute. Their technical bases are used for practical work and final thesis preparation.

Students do have possibilities for individual work at the faculty building, including 27 working places (10 of them are computerized). Library and computer access hours (Monday – Thursday from 8 to 19, on Friday from 8 to 18, on Saturday from 9 to 15 without lunch break) are sufficiently long to ensure proper learning opportunities. As well students have a possibility to use reading rooms of the Central Library with 174 working places (32 of them are computerized). During the site visit it was found out that students do use resources provided by the library and use computerised working places for their studies.

Requisite study material can be found at the KTU website <http://www.ebooks.ktu.lt> (open access for KTU students). The teaching staff has prepared 17 textbooks in 2008-2012 period, it is a unique resource for the implementation of the study programme.

The KTU Intranet gives access to databases both for lecturers and students, not only from KTU computers, but also from their personal computers. It is worth to note that KTU had found resources for hardware updates – 1.3 million Lt, as well as invested over 100 000 Lt buying software licenses during the last 5 years. This definitely will have a long-standing influence on reducing the illegal software market in Lithuania, and will help to promote fair play rules for the universities and generally in science.

5. Study process and student assessment

The admission requirements to the Bachelor in *AP* study programme are well founded. The admission to the *AP* study programme follows the requirements set by “Students’ admission rules to KTU” and is organised by the Association of Lithuanian higher education institution for organization of general admittance (LAMA BPO). The number of admitted students fluctuated not more than 3 persons to the average of 18 students in the last 5 years. The comparative score averages (16,81-17,87) of the admitted students has remained practically the same during the evaluated period. One sign of the right process for the admission is the low, but non-zero dropout rates during the study period.

According to the data provided in SER, more than a half of the accepted students manage the prescribed schedule and there are only a minority, who fail their studies. However, the ratio of the admitted and graduated students has decreased during the five years period (ratio of the admitted and completed studies during the evaluation period – 0,72-0,42). This can be a slight

sign for negative tendencies in the secondary school preparation of the admitted students and even it can be explained by demographic situation of the country.

Most views of the study process seem to be properly organized. One of the most important parts of the study process – the study plan is worked out with the involvement of students. This is the main point, which ensures the adequate development of the study programme.

Another point of high importance is the procedure of examination schedules. These are prepared in collaboration between the teachers and the students. This is also true for the knowledge and competencies, for exercises and for laboratory work. All these together help the students to reach the intended learning outcomes. In general, the assessment system of the students' performance is adequate and publicly available.

The most talented students are positively encouraged to take part in research activities during their studies. Those, who participate in scientific research, have opportunities to show their research achievements at different conferences or seminars.

The right intellectual development of a student includes the international mobility. Without mobility it is impossible to get acquainted with the science community, to know the special atmosphere of scientific institutes or laboratories at international level. Therefore it is one of the major shortcomings of the study process of this *AP* study programme. Though there are 18 bilateral agreements for students' international exchange, but these arrangements mostly do not work very well as the mobility is low – in a period 2008-2013 just 12 persons used the ability to study abroad. It is a strong recommendation that the administration of the study programme should build up living and functioning mobility networks. For this reason the managers of the study programme should work out a strategy, which has a chance to work for a longer period.

During their studies, the students have continuous connections with their educators. It is visible, that both the most talented students for their additional research works and those who have difficulties can get advices and help from them. For graduates, the Career Centre of the university means a good and appropriate connection to the labour market. Besides the periodical seminars organized by KTU Career Centre, Department of Physics also periodically organizes the seminars where representatives of different companies: UAB „Accel elektronika“, UAB „Technologija“, UAB „Renega“, UAB „Grida LAB“, UAB „Norta“, VATESI, „Optida“, UAB „EuroParama“, UPS, UAB „Baltec CNC Technologies“, Protech (Applied Research Institute for Prospective Technologies), MET (Modernios E-Technologijos), UAB Litnobiles, UAB Elinta

introduce the possibilities to get the practice place and introduce the job opportunities for the *AP* study programme students.

Moreover the following enterprises/institutions during the period 2010-2013 have become students' partners for professional practice: Lithuanian Energy Institute, Institute of Physical Electronics, Center for Physical Science and Technology, UAB "Elintos matavimo sistemas", UAB "Fudo", UAB "Rubedo sistemas", UAB "Sportralė", UAB "SK Impex Service Center".

The social help is given to the students according to the rules and procedures of KTU. There was no sign of an incorrect procedure or any case in this field. The students, who wish it, get dormitories, access sport and cultural activities.

Most of the students, who graduated from the first cycle *Applied Physics study* programme, are applying for the Master's degree studies. As the Master study programmes mostly accept them, it is difficult to tell whether graduates would be successful in the labour market or not. However, the discussion with social partners implied that the graduates, who enters the labour market meet their expectations.

6. Programme management

The study programme management should assure that the educational programme and its modules are taught in a way that make it possible for the students to achieve the intended learning outcomes. Programme management should also assure that the students results are assessed against the achievement of the intended learning outcomes and that the analysis of the assessment leads to improved education and learning.

The main bodies responsible for the management of *AP* study programme and internal quality assurance are: Faculty of Fundamental Sciences Council (accepts the decisions on the most important issues about studies organization, science and other questions, relating the Faculty, discuss and present Faculty's study programmes to the Senate for approval), Dean and Vice-Deans of the Faculty (coordinate the activities of the Faculty departments, organize the study process and Faculty research activities, continuously improve their quality, implement Senate and Faculty Council resolutions, and the Rector's orders), Study Programme Committee (Study Programme Committee is responsible for all Faculty of Fundamental Sciences' study programmes; prepares and develops study programmes, ensures the quality of implementation, coordinates the work of the departments involved in the preparation of study programmes, provides proposals for the improvement of existing programmes or new preparation to the Faculty Council in collaboration with the departments, the Senate and the Academic Cultural Studijų kokybės vertinimo centras

Committee, with the regard to their proposals), also the Head of the Department of Physics and study programme coordinator. The administrative bodies, who are directly responsible for the proper study programme implementation and it's development are study programme coordinator and the head of the Department of Physics. It is necessary to mention, that the process of the study programme administration and it's internal quality assurance is reflected in academic information system operating in ORACLE environment from 2003 (according to SER, regularly updated information system provides the sequence of decisions on study programme quality assurance, programme review and approval process describing the latest normative documents).

As experts' team have noticed, that one of the most important elements in study programme management – leadership is in place – it is strong and dynamic. The Head of the Department of Physics really cares about the *AP* study programme and its students. However it is guided by the vision of increased academic relevance and less by the demand of the labour market. This orientation by experts' team is perceived as not very dynamic and lacking an external perspective on the quality of the study programme.

The notion of internal quality assurance, its assessment and the relation with the intended learning outcomes must involve main social stakeholders: study programme management, teaching staff, students, graduates and employers:

1. Concerning the study programme management, *AP* curriculum is annually revised, while study subjects by Study Programme Committee are certified every three years;
2. The teachers are responsible for the study subject quality. Every teacher submits proposals related to their respective study subject update at the meetings of the Department;
3. Students representatives participate at the meetings of KTU Senate, Faculty Council and Study Programme Committee. Each semester students have a possibility to express their opinion answering questionnaires (prepared by Studies Office) about the studies quality. Long-term results of the surveys are used by Study Programme Committee for study subjects certification, attestation and competition commission, lecturers performance assessment;
4. The alumni also take part in study programme improvement – the questionnaire on the evaluation of study programme was performed. The survey showed that there is a necessity to make closer connection between theoretical and practical application of the study subject;

5. Social partners participate in study programme implementation and improvement of studies quality by sharing practical experiences in delivering lectures and during the students' practices.

However it is recommended to provide the questionnaires about the studies quality to alumni and social partners periodically and create more formalised feedback system. Also experts' team suggests not just to name the weaknesses of the study programme (as it was done in SER), but provide clear means supported by numbers, which exclude the possibility to observe achieved progress both as an internal guidance and for future expert teams.

III. RECOMMENDATIONS

1. To set clearer intended learning outcomes assessment methods. Exceptional attention should be paid to the assessment, if the intended learning outcomes linked to social and personal abilities were achieved.
2. To introduce the intended learning outcomes related to creativity and innovation.
3. To increase the variety of elective courses in the curriculum.
4. To increase the numbers of teachers and students mobility.
5. The traditional quality culture needs to be complemented to ensure that improvements and new priorities are given a place in the curriculum and reflect themselves in the intended learning outcomes.
6. To create more formalised feedback (concerning main social stakeholders) system.
7. New ways to communicate with non-academic organisations and companies should be considered.

IV. SUMMARY

The main strengths of *Applied Physics* Bachelor study programme:

- High quality culture;
- Motivated students;
- Qualified and devoted academic staff;
- Exceptionally good material resources;
- Strong leadership.

The main weaknesses of *Applied Physics* Bachelor study programme:

- The lack of clear assessment methods of the intended learning outcomes linked with social and personal abilities;
- Low teachers and students mobility numbers;
- Lack of the formalised feedback system from the main social stakeholders.

V. GENERAL ASSESSMENT

The study programme *Applied Physics* (state code – 612F30007) at Kaunas University of Technology 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	3
2.	Curriculum design	3
3.	Staff	4
4.	Material resources	4
5.	Study process and assessment (student admission, study process student support, achievement assessment)	3
6.	Programme management (programme administration, internal quality assurance)	3
	Total:	20

*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:

Prof. Sven Anders Flodström

Grupės nariai:
Team members:

Prof. Bernard Remaud

Prof. Adam Kiss

Doc. Artūras Acus

Dr. Irmantas Kašalynas

Paulius Simanvičius

**KAUNO TECHNOLOGIJOS UNIVERSITETO PIRMOSIOS PAKOPOS STUDIJŲ
PROGRAMOS *TAIKOMOJI FIZIKA* (VALSTYBINIS KODAS – 612F30007) 2013-09-03
EKSPERTINIO VERTINIMO IŠVADŲ NR. SV4-303 IŠRAŠAS**

<...>

V. APIBENDRINAMASIS ĮVERTINIMAS

Kauno technologijos universiteto studijų programa *Taikomoji fizika* (valstybinis kodas – 612F30007) vertinama **teigiamai**.

Eil. Nr.	Vertinimo sritis	Srities įvertinimas, balais*
1.	Programos tikslai ir numatomi studijų rezultatai	3
2.	Programos sandara	3
3.	Personalas	4
4.	Materialieji ištekliai	4
5.	Studijų eiga ir jos vertinimas	3
6.	Programos vadyba	3
	Iš viso:	20

* 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

Pagrindinės *Taikomosios fizikos* bakalauro studijų programos stiprybės:

- Aukšta kokybės kultūra;
- Motyvuoti studentai;
- Kvalifikuotas ir atsidavęs personalas;
- Išskirtinai aukštos kokybės materialieji ištekliai;
- Stipri lyderystė.

Pagrindinės *Taikomosios fizikos* bakalauro studijų programos silpnybės:

- Nepakankamai aiškūs su socialiniais ir asmeniniais gebėjimais susijusių numatomų studijų rezultatų vertinimo metodai;
- Nedidelis dėstytojų ir studentų dalyvavimo judumo programose skaičius;

- Formalizuotos pagrindinių socialinių dalininkų grįžtamojo ryšio teikimo sistemos nebuvimas.

III. REKOMENDACIJOS

1. Pasitelkti aiškesnius numatomų studijų rezultatų vertinimo metodus. Išskirtinį dėmesį reikėtų skirti įvertinimui, ar pasiekti su socialiniais ir asmeniniais gebėjimas susiję numatomi studijų rezultatai.
2. Suformuluoti į kūrybiškumą ir novatoriškumą orientuotus numatomus studijų rezultatus.
3. Turėtų būti siūlomi įvairesni laisvai pasirenkami studijų dalykai.
4. Padidinti judumo programose dalyvaujančių dėstytojų ir studentų skaičių.
5. Tradicinė kokybės kultūros koncepcija turėtų būti peržiūrėta, siekiant užtikrinti, kad bus skiriama pakankamai dėmesio studijų programos tobulinimui ir naujiems prioritetams, kurie turėtų atsispindėti numatomuose studijų rezultatuose.
6. Formalizuoti grįžtamąjį ryšį (iš pagrindinių socialinių dalininkų).
7. Reikėtų apsvarstyti įvairesnes bendradarbiavimo su neakademinėmis organizacijomis, taip pat verslo įmonėmis galimybes.

<...>

Paslaugos teikėjas patvirtina, jog yra susipažinęs su Lietuvos Respublikos baudžiamojo kodekso¹ 235 straipsnio, numatančio atsakomybę už melagingą ar žinomai neteisingai atliktą vertimą, reikalavimais.

¹ Žin., 2002, Nr.37-1341.