

# STUDIJŲ KOKYBĖS VERTINIMO CENTRAS

# LIETUVOS VERSLO KOLEGIJOS STUDIJŲ PROGRAMOS *TAIKOMOJI INFORMATIKA* (653I13002)

VERTINIMO IŠVADOS

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# EVALUATION REPORT OF APPLIED INFORMATICS (653I13002) STUDY PROGRAMME at LITHUANIA BUSINESS COLLEGE

Grupės vadovas: Team leader: Prof. Jyrki Nummenmaa

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Išvados parengtos anglų kalba Report language – English

### DUOMENYS APIE ĮVERTINTĄ PROGRAMĄ

Studijų programos pavadinimas	Taikomoji informatika	
Valstybinis kodas	653I13002	
Studijų sritis	Fiziniai mokslai	
Studijų kryptis	Informatika	
Studijų programos rūšis	Koleginės studijos	
Studijų pakopa	Pirmoji	
Studijų forma (trukmė metais)	Nuolatinė (3 m.), ištęstinė (4)	
Studijų programos apimtis kreditais	180 ECTS	
Suteikiamas laipsnis ir (ar) profesinė kvalifikacija	Taikomosios informatikos profesinis bakalauras, programuotojo profesinė kvalifikacija	
Studijų programos įregistravimo data	Lietuvos Respublikos švietimo ir mokslo ministro 2001 m. rugpjūčio 31 d. įsakymu Nr. 1254	

#### INFORMATION ON EVALUATED STUDY PROGRAMME

Title of the study programme	Applied Informatics
State code	653I13002
Study area	Physical Sciences
Study field	Informatics
Kind of the study programme	College studies
Study cycle	First
Study mode (length in years)	Full-time (3 years), part-time (4 years)
Volume of the study programme in credits	180 ECTS
Degree and (or) professional qualifications awarded	Professional Bachelor of Applied Informatics, Programmer Professional Qualification
Date of registration of the study programme	31 of August 2001, under the order of the Minister of the Ministry for Education and Science of the Republic of Lithuania No. 1254

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	9
4. Facilities and learning resources	10
5. Study process and student assessment	10
6. Programme management	11
III. RECOMMENDATIONS	13
IV. SUMMARY	13
V. GENERAL ASSESSMENT	15

#### I. INTRODUCTION

The procedures of the external evaluation of the Lithuania Business College's *Applied Informatics* Professional Bachelor study programme were organized by the Centre for Quality Assessment in Higher Education of Lithuania. It selected and appointed the external evaluation Review Panel formed by Professor Jyrki Nummenmaa (Professor of Computer Science, University of Tampere, Finland, head of the Panel), Professor Bernhard Hollunder (Professor at the Computer Science Department at Furtwangen University of Applied Sciences, Germany), Mr Andrus Rinde (Lecturer of Multimedia at Tallinn University, Estonia), Mr Andrej Ruckij (Head of Development at UAB "Adform", employer representative), and Mr Lukas Jokūbas Jakubauskas (graduate of *Informatics Engineering* at Kaunas University of Technology, student 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 is the Self-Evaluation Report (hereafter, SER), dated 2013, its annexes, and the site visit of the Review Panel to Lithuania Business College on 28<sup>th</sup> May, 2014.

The visit incorporated all required meetings with different groups: the administrative staff, the group responsible for preparing the self-evaluation documents, teaching staff, students, graduates and employers. The Review Panel evaluated various support services (classrooms, laboratories, library, computer facilities), examined students' final works, and various other materials. After the Review Panel discussions and additional preparations of conclusions and remarks, introductory general conclusions of the visit were presented. After the visit, the Panel met to discuss and agree the content of the report, which represents the Review Panel consensual views.

Lithuania Business College primarily gives education in the field of Social Sciences, with the exception of the *Applied Informatics* study programme under evaluation by this Panel. A previous external evaluation was performed in 2007. At that time, the Lithuania Business College was functioning under the name West Lithuania Business College, and it was organizing studies in informatics to train programmers. However, according to the evaluation from 2007, the studies were not an official first-cycle study programme at that time. According to the

recommendation given by the evaluation, the programme was then developed into a general renewed first-cycle study programme.

#### II. PROGRAMME ANALYSIS

#### 1. Programme aims and learning outcomes

The aim of the study programme *Applied Informatics* is to educate internationally competitive IT specialists awarding a Professional Bachelor degree. In particular, the graduates will be able to design, construct and programme software systems according to specified business and technical requirements. The SER stresses the increasing demand for those specialists in the Lithuanian labour market. It is remarkable that the employability of former graduates of this study programme is over 90%, as is indicated in the statistics collected by the higher education institution.

The study programme corresponds to the level 6 pursuant to European Qualifications Framework. The 16 programme intended learning outcomes address theoretic knowledge, practical skills and abilities in terms of general education such as team work and communication. The intended learning outcomes are grouped into the three categories: "knowledge and understanding", "practical and cognitive abilities" and "transferable abilities". These intended learning outcomes are well-defined and correlate with the aims of the study programme. However, the SER does not indicate the fact that some of the intended learning outcomes are alternatives. This is misleading, because not every graduate will really acquire the full set of competences associated with the defined intended learning outcomes.

The above mentioned inaccuracy mainly comes from the specializations provided in the fifth semester. A student can choose one of the three specializations: Programming and Information Services, Electronic Publishing and Computer Networks Management. According to the SER, the specializations "make an especially important part of the college study programme". This, however, is not reflected how the specializations are actually managed by the stakeholders, who have different perceptions. For example, the administration emphasizes the importance of Electronic Publishing, while the students or applicants do not have strong interest in this topic. From the student's perspective Programming and Information Services is the most attractive specialization. There are several students applying for Computer Networks Management. However, the minimum number of students for teaching the subjects of this specialization is typically not reached. It seems that administration and Study Programme Committee have different opinions on the importance of the current specializations combined with a missing strategy for further development.

Another weakness of the intended learning outcomes is related with modern software development approaches. IT specialists with the profile as described in the SER should have a good understanding of agile software development and management methods, while they are not mentioned in the intended learning outcomes, and, subsequently, they do not appear in the curriculum. Also, the study programme does not yet address important mainstream technologies such as cloud computing and virtualization. An increasing demand for these topics is postulated by social partners and the scientific community. On the other hand, the study programme provides subjects, which do not seem highly relevant for a graduate's qualifications on the labour market anymore. For example, according to the SER, the aim of the study subject Physics is "to introduce students to the physical principles of operation of computer equipment through the understanding of mechanical and molecular processes, electromagnetic phenomena.", which are not the topics relevant to the programme.

The study programme has a publicly available website <a href="http://www.ltvk.lt/index.php?-module=staticpages&id=191">http://www.ltvk.lt/index.php?-module=staticpages&id=191</a>, which includes descriptions of the intended learning outcomes (Lithuanian version only) and the study plan (both in Lithuanian and English). It should be noted, that these descriptions are to some extent inconsistent with information given in the SER. For example, the numbers of intended learning outcomes are different (16 in the SER vs. 30 on the website). Also, the study plan as presented in the SER differs from the English version presented on the website: there are inaccuracies with respect to names of study subjects (e.g. Computer Statistics vs. Mathematical Statistics), the assignment of subjects to study semesters (e.g. Data Structure and Algorithms: fourth vs. third semester) and the number of credits (e.g. Computer Graphics: 5 ECTS vs. 3 ECTS).

To sum up, the programme name, *Applied Informatics*, can well be used to describe the programme with its specialisations. Despite the mentioned some formal weaknesses in the section, the programme aims and the intended learning outcomes are quite well defined, are compatible with each other and qualification on offer, and match the labour market needs.

#### 2. Curriculum design

The study programme consists of 180 ECTS and can be completed either in three years (full-time studies) or four years (part-time studies). For full-time students, each semester consists of at most seven subjects with 30 ECTS. The workload of a part-time students is 22 or 23 ECTS (depending on the semester) with at most five subjects taught each semester. In the final semester a student performs the final professional practice and prepares the final thesis. The

curricula both for the full-time studies and the part-time studies conform to the "General Requirements of the First Degree and Integrated Study Programmes" set by the Minister for Education and Science of the Republic of Lithuania.

The teaching subjects are grouped into the following categories: "general subjects" (25 ECTS), "basic professional subjects" (85 ECTS), three specializations (each 22 ECTS), "practices" (30 ECTS), elective study subjects (9 ECTS) and the preparation of final thesis (9 ECTS). This structure fits well to the defined intended learning outcomes with a good mix of general subjects, the professional subjects and three practices.

The programme has two study plans: one for the full-time studies and one for the part-time studies. The order of the subjects of the full-time studies is logical and reasonable. The study subjects of "basic professional subjects" are basically taught during the first four semesters, followed by the specializations and final thesis in the last two semesters.

However, the study plan for part-time studies has some weaknesses. The SER does not give reasons why some subjects (e.g., Computer Graphics) are taught in earlier semesters than in the full-time studies. In the Panel discussion, it was also noted that an individual study plan is feasible, but the practice seems to be unclear for students and is largely untried.

Some study subjects of the category "basic professional subjects" do not fully reflect the current state of the art in computer science. For example, there are infrastructure technologies of high relevance (e.g., cloud computing) and mainstream methodologies in software engineering (e.g., agile methods) that are not or not adequately covered in the curriculum.

Attention should be paid that the list of subject descriptions provided in Annex 1 of the SER (Annotations of Study Subjects) does not contain all teaching subjects listed in the study plan. For example, the descriptions of the subjects of the specialization Electronic Publishing are completely missing. This is both for the Review Panel as well as students unsatisfying. It should also be noted that the subject descriptions are not publicly available, which might be problematic for applicants. Enrolled students can access the descriptions just via the College's Moodle system.

Overall, after the analysis of the provided documentation and the site visits the Review Panel could approve that the curriculum is consistent with the programme aims and intended learning outcomes, as well as the study field and the level of studies, and the curriculum contains mostly relevant study subjects that build up employability for the graduates.

#### 3. Staff

The study programme is implemented by 2 professors, 6 associate professors, 12 lecturers and 4 assistants. There are 11 teachers holding a doctoral degree and 2 teachers are PhD students. All lecturers teaching in the study programme hold at least a Master's degree. All staff members have at least five years teaching experience and at least three years of work experience. More than 70% of the study field subjects are taught by staff members with doctoral degree. Therefore the legal requirements are more than amply fulfilled. The average age of the lecturers is 41 years, and the distribution of age ranges from 29 to 68 years, which seems good considering the future of the higher education institution.

In the SER the importance of research is expressed: "Important aim of the College mission – to conduct applied research and scientific development works indispensable for development of the region." Most of the teachers (approximately 60%) are quite active in research, which is demonstrated by their considerable number of recent publications in conference proceedings and scientific journals. Staff members are also participating to some extent in projects of applied research with third parties.

The College administration provides several instruments for the professional development of the staff. A lecturer can invest, depending on the position, 20-50% of his / her working time for project and research activities. An ongoing academic exchange and teacher mobility programme has been established several years ago. In the past, each year at least two teachers participated in the Erasmus programme. In the opinion of the Panel, this is a strength of the staff, and the situation can hopefully be maintained. Every academic year, the College also organizes a "Quality Day" to develop teaching competence of lecturers.

The Panel session with the teachers has revealed that the members of staff (at least the attending teachers) are highly motivated and have a solid technical background. The study subjects seem to be better than the subject descriptions suggest. The staff has the potential to further develop the study programme according to the recommendations of the Review Panel and future requirements from social partners and upcoming technological trends. In students' opinion, everything was well with the teachers and the teachers were open to students' feedback and suggestions.

According to the SER, the total numbers of students (full-time and part-time studies) has varied between 42 and 69 in the past five years. This results in a student/teacher ratio from

approximately 2-2.5, which is appropriate. It should be noted that the Panel discussions revealed several mistakes and inconsistencies in the SER. For example, the number of part-time students mentioned in the Table 13 of the SER is incorrect: e.g. according to the SER, there are no part-time students starting on 2012-2013, but according to the administration, there are. However, this error does not significantly affect the student/teacher ratio.

#### 4. Facilities and learning resources

The premises are modern and generally provide a nice environment for studies. The Cisco lab looked good, but elsewhere computers are partly at end of their life-cycle. Since some of the facilities are not only for this programme, it is harder to evaluate if there are enough basic computer labs. However, the equipment might be just about good enough for basic office programmes, but, in the opinion of the Review Panel, the equipment is not suitable for upto-date topics on, e.g. computer graphics, or electronic publishing (if such speciality is taught). Some parts of the studies, like computer graphics, require special software, and without buying their own license, the students have to use the old computers in the labs.

The library facilities seemed sufficient, based on the visit and the fact that the students did not have any complaints. However, it was a bit worrying to see that the final theses that the Panel reviewed primarily referenced Lithuanian sources. The reason for this is not known, but it would anyway be useful for the students to learn to look for information more globally.

Social partners told in the meeting that they help in arranging practice possibilities. Students have three practices during studies which allows them to improve practical skills. There were no claims of difficulties by students in finding a practice place.

#### 5. Study process and student assessment

The admission process is typical for the Lithuanian higher education institutions – the competition score is made up of the marks for mathematics, informatics, and Lithuanian language during school final examination and annual mark for foreign language multiplied by leverage coefficients. General requirements of entering higher education institutions of Lithuania are published on the website of general admission of Association of Lithuanian Higher Educational Institutions.

In terms of students participation in scientific activity, students are encouraged to participate in applied research. Student papers are published in Management magazine, which apparently has a

misleading name. Also students are encouraged to participate in mobility programmes such as Erazmus. Attention should be paid, that meetings with students returned from such programmes are being organized. The students were enthusiastic about these possibilities.

According to the students, they are happy with the supervision and guidance they get from the teachers. The social support system is the same as elsewhere in Lithuania, and, additionally, recently a student with disabilities entered and some special equipment was installed for this reason.

The assessment is based on practical tasks and exams, with the possibility to raise the marks in an oral exam. Students during the meeting with the Panel claimed that they do not need to memorize things to pass an exam, teachers rather require students to demonstrante their practical skills. The students expressed confidence in that their marking is fair. In the case of final thesis defence, the social partners are invited to participate in assessment.

Expectations of employers are met as graduates can start working as junior specialists solving various IT problems. Students usually find work as IT administrators and computer specialists for non-software development companies. Most graduates easily find employment and even establish their own business in IT services. Social partners indicated the need for more skills in web applications development and database administration.

#### 6. Programme management

According to the SER, the College Director is responsible for organisation of the study process, quality assurance of studies, rational use of material and human resources. Also the role in the programme management is taken by the Economics Department, the Committee of the Programme of Applied Informatics, and the Academic Board. From the documentation provided and discussions during the meetings, it is clear that the College formally has the programme management system in place and collects feedback from various stakeholders.

Student feedback can be given by filling the surveys. However, according to the students, it is necessary to log in to give the feedback, which means that **the really anonymous feedback is not possible** – even if the teachers do not see who is giving the feedback, it is important that the students can give feedback that is guaranteed to remain anonymous. **Attention also should be paid that the students, when asked, were unaware of their member in the Study Programme Committee**.

In the meeting with the teachers, it was found out that there are things unclear for teachers, such as regulations on when and how study subjects in the curriculum can be renewed. For instance, social partners informed the Panel about the demand in the labour market in mobile applications development, but the staff did not seem to know about that.

Major problems were found by the Panel with the information on the studies: information on the Internet, the SER, and answers in the meetings do not match. There is little public information on studies. When questions were asked in the meetings about things that were worrying the Review Panel, the usual answer was "it is not like that" or "we are considering that". There are different versions of study subjects descriptions and possibly none match the reality. Moreover, the descriptions of the specializations are not publicly available. Instead of that they are explained by staff before selection, which is good, but the information should be improved to guarantee more conscious decision. All this makes the whole external evaluation quite hard and should be fixed in the short-term.

To sum up, the Panel assesses that internal quality assurance measures are just partly effective and efficient.

#### III. RECOMMENDATIONS

- 1. Information management on studies, regulations, Study Programme Committee, etc. should be urgently improved. Information available through different sources should be correct and consistent and generally available for the relevant stakeholders. This includes preparation of the SER and the documentation on the Internet.
- 2. The equipment at the end of their life-cycle should be renewed in the short-term.
- 3. An anonymous feedback system should be implemented for the students' feedback.
- 4. Study Programme Committee should critically review the importance of the current specializations and should define a strategy for further development following the demands of students, social partners and scientific community. The intended learning outcomes should be adapted accordingly.
- 5. Subjects which do not longer seem highly relevant for the study programme (e.g., Physics and Computers Electronics) should be shortened or provided as elective study subjects.
- 6. The curriculum should address mainstream technologies such as cloud computing, virtualization, and software development for mobile systems such as Android.
- 7. Study subjects of the category "basic professional subjects" should be modernized. Topics to be included are for example agile methods such as Extreme Programming / Scrum and HTML 5. The modification of intended learning outcome 2.4 (the SER) should be considered to include agile methods, and instead of *standard methods* the intended learning outcome 2.4 might mention *well-known methods*.
- 8. The study plan for part-time studies should be improved and inconsistencies should be eliminated.
- 9. It should be ensured that the students are able to look for information from other than Lithuanian sources, e.g. in preparing their final theses.

#### IV. SUMMARY

The external evaluation of the first cycle study programme *Applied Informatics* at Lithuania Business College was difficult to perform due to differences in the SER, Internet documentation, and answers received during the site visit. The information management should be improved urgently, ensuring that correct and consistent information is available for different stakeholders.

The Review Panel concludes that the programme has reasonable aims and intended learning outcomes, and it seems to give practically certain employment. The curriculum design and study subject contents were found to be better than the provided documentation suggests, but still the contents can be modernized in some respects.

The teachers are the main strength of this programme, and they gave a very positive impression over the visit. As for facilities, some of the computers in the computer labs are at the end of their life-cycle and the labs need attention in the near future. This is an issue that needs urgent action to be taken.

The study process seems to work very well, and particularly the students' assessment system is praiseworthy as the students have confidence in it.

The feedback system regarding students is not anonymous – the students need to log in to provide the feedback. An anonymous feedback system should be provided; also attention should be paid seeking to assure that the teachers are well informed about the system of making changes in the study subjects on the feedback they have received.

#### V. GENERAL ASSESSMENT

The study programme *Applied Informatics* (state code – 653I13002) at Lithuania Business College is given a **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	2
5.	Study process and assessment (student admission, study process student support, achievement assessment)	4
6.	Programme management (programme administration, internal quality assurance)	2
	Total:	18

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

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<sup>2 (</sup>satisfactory) - meets the established minimum requirements, needs improvement;

<sup>3 (</sup>good) - the field develops systematically, has distinctive features;

<sup>4 (</sup>very good) - the field is exceptionally good.

#### LIETUVOS VERSLO KOLEGIJOS PIRMOSIOS PAKOPOS STUDIJŲ PROGRAMOS TAIKOMOJI INFORMATIKA (VALSTYBINIS KODAS – 653I13002) 2014-08-19 EKSPERTINIO VERTINIMO IŠVADŲ NR. SV4-452 IŠRAŠAS

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#### V. APIBENDRINAMASIS ĮVERTINIMAS

Lietuvos verslo kolegijos studijų programa *Taikomoji informatika* (valstybinis kodas – 653I13002) vertinama **teigiamai**.

Eil.	Vertinimo sritis	Srities įvertinimas,
Nr.		balais*
1.	Programos tikslai ir numatomi studijų rezultatai	3
2.	Programos sandara	3
3.	Personalas	4
4.	Materialieji ištekliai	2
5.	Studijų eiga ir jos vertinimas	4
6.	Programos vadyba	2
	Iš viso:	18

<sup>\* 1 -</sup> Nepatenkinamai (yra esminių trūkumų, kuriuos būtina pašalinti)

#### IV. SANTRAUKA

Atlikti pirmosios pakopos studijų programos Taikomoji informatika išorinį vertinimą buvo sudėtinga dėl informacijos, pateiktos savianalizės suvestinėje, internete ir vizito metu pateiktuose atsakymuose, skirtumų. Reikėtų skubiai gerinti informacijos, susijusios su studijų programa vadybą, užtikrinant, kad įvairūs socialiniai dalininkai gautų teisingą ir tą pačią informaciją.

Ekspertų grupė priėjo prie išvados, kad studijų programos tikslai ir numatomi studijų rezultatai yra tinkamai apibrėžti ir, iš pažiūros, sukuria prielaidas absolventams įsidarbinti. Programos sandara ir studijų dalykų turinys yra geresnės kokybės nei gali pasirodyti peržiūrėjus vertinimui pateiktus dokumentus. Vis dėlto studijų turinį kai kuriais atžvilgiais reikėtų modernizuoti.

Dėstytojai yra pagrindinė šios studijų programos stiprybė. Akademinis personalas vizito metu ekspertų grupei paliko teigiamą įspūdį. Dėl materialiųjų išteklių reikėtų atkreipti dėmesį, kad kai kurie laboratorijose esantys kompiuteriai yra jų naudojimo ciklo pabaigoje, taigi netolimoje

<sup>2 -</sup> Patenkinamai (tenkina minimalius reikalavimus, reikia tobulinti)

<sup>3 -</sup> Gerai (sistemiškai plėtojama sritis, turi savitų bruožų)

<sup>4 -</sup> Labai gerai (sritis yra išskirtinė)

ateityje juos reikėtų atnaujinti. Pažymėtina, kad minėtajai problemai spręsti veiksmų reikėtų imtis nedelsiant.

Studijų eiga programoje yra itin sklandi, ypatingai reikėtų pagirti studentų vertinimo sistemą, kuria studentai pasitiki.

Studentų grįžtamojo ryšio teikimo sistemoje nėra užtikrinamas anonimiškumas – kad pateiktų grįžtamąjį ryšį, studentai turi su savo identifikaciniais duomenimis prisijungti prie sistemos. Reikėtų užtikrinti studentų anonimiškumą teikiant grįžtamąjį ryšį. Taip pat svarbu, kad dėstytojai būtų informuojami apie studijų dalykų pakeitimų tvarką atsižvelgiant į gautą grįžtamąjį ryšį.

#### III. REKOMENDACIJOS

- 1. Reikėtų nedelsiant tobulinti informacijos apie studijas, nuostatus, Studijų programos komitetą ir t. t. valdymo procesą. Įvairiuose šaltiniuose pateikiama informacija turėtų būti tiksli, suderinta ir apskritai prieinama programos socialiniams dalininkams. Minėtosios rekomendacijos taip pat turėtų būti taikomos savianalizės suvestinei bei internete pateikiamiems dokumentams.
- 2. Įranga, kurios gyvavimo ciklas baigiasi, turėtų būti atnaujinama trumpuoju periodu.
- 3. Turėtų būti įdiegta anonimiška studentų grįžtamojo ryšio teikimo sistema.
- 4. Studijų programos komitetas turėtų kritiškai įvertinti dabartinių specializacijų svarbą ir, atsižvelgdamas į studentų, socialinių partnerių ir mokslo bendruomenės poreikius, apibrėžti tolesnio programos tobulinimo strategiją. Atitinkamai reikėtų pakoreguoti numatomus studijų rezultatus.
- 5. Reikėtų peržiūrėti studijų dalykų, kurie šiuo metu nėra itin aktualūs šiai studijų programai (pvz., *Fizika ir Kompiuterių elektronika*), apimtį arba juos dėstyti kaip pasirenkamuosius studijų dalykus.
- 6. Studijų programa turėtų atspindėti vyraujančias technologijas, pavyzdžiui, dėmesys turėtų būti skiriamas debesų kompiuterijai, virtualizacijai ir programinei įrangai mobiliesiems įrenginiams, pvz., *Android*.
- 7. "Pagrindinių profesinių dalykų" kategorijai priskiriamus studijų dalykus reikėtų modernizuoti. Į studijų dalykus reikėtų įtraukti tokias temas kaip *Agile* metodai (*Extreme Programming / Scrum* ir *HTML 5*). 2.4 savianalizės suvestinės punkte pateiktą numatomą studijų rezultatą reikėtų peržiūrėti, į jį įtraukiant *Agile* metodus, o tame pačiame punkte minimus *standartinius metodus* reikėtų pakeisti *gerai žinomais metodais*.
- 8. Reikėtų peržiūrėti ištęstinių studijų planą ir pašalinti jame esančius neatitikimus.

	eikėtų užtikrinti, kad studentai turi galimybę, pavyzdžiui, rengdami baigiamąjį darba formacijos ieškoti ne tik lietuviškuose šaltiniuose.
<>	
	teikėjas patvirtina, jog yra susipažinęs su Lietuvos Respublikos baudžiamojo kodekso <sup>1</sup> 23 numatančio atsakomybę už melagingą ar žinomai neteisingai atliktą vertimą, reikalavimais.

<sup>&</sup>lt;sup>1</sup> Žin., 2002, Nr.37-1341.