



STUDIJŲ KOKYBĖS VERTINIMO CENTRAS

VILNIAUS GEDIMINO TECHNIKOS UNIVERSITETO
STUDIJŲ PROGRAMOS *STATYBOS INŽINERIJA*
(621H20003)
VERTINIMO IŠVADOS

EVALUATION REPORT
OF *CIVIL ENGINEERING* (621H20003)
STUDY PROGRAMME
AT VILNIUS GEDIMINAS TECHNICAL UNIVERSITY

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Išvados parengtos anglų kalba
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Vilnius
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DUOMENYS APIE ĮVERTINTĄ PROGRAMĄ

Studijų programos pavadinimas	<i>Statybos inžinerija</i>
Valstybinis kodas	621H20003
Studijų sritis	Technologijos mokslai
Studijų kryptis	Statybos inžinerija
Studijų programos rūšis	Universitetinės studijos
Studijų pakopa	Antroji
Studijų forma (trukmė metais)	Nuolatinė (2 m.)
Studijų programos apimtis kreditais	120 ECTS
Suteikiamas laipsnis ir (ar) profesinė kvalifikacija	Statybos inžinerijos magistras
Studijų programos įregistravimo data	Lietuvos Respublikos švietimo ir mokslo ministro 2007 m. vasario 19 d. įsakymu Nr. ISAK-225

INFORMATION ON EVALUATED STUDY PROGRAMME

Title of the study programme	<i>Civil Engineering</i>
State code	621H20003
Study area	Technological Sciences
Study field	Civil Engineering
Kind of the study programme	University Studies
Study cycle	Second
Study mode (length in years)	Full-time (2 years)
Volume of the study programme in credits	120 ECTS
Degree and (or) professional qualifications awarded	Master of Civil Engineering
Date of registration of the study programme	19 of February 2007, under the order of the Minister of the Ministry for Education and Science of the Republic of Lithuania No. ISAK-225

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The Centre for Quality Assessment in Higher Education

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I. INTRODUCTION

This report presents the findings of an evaluation of a Master programme *Statybos inžinerija* (state code 621H20003; the name of the programme in English – *Civil Engineering*). This two year full-time programme leads to a Master of Civil Engineering qualification.

The evaluation report is based on an analysis of the Self-evaluation Report (hereafter, the SER), (consisting of 30 pages main text, excluding annexes) and information gathered by the Review Panel during a site visit to Vilnius Gediminas Technical University (hereafter, VGTU) on 4-5 February 2014.

The Review Panel has been informed that the specialization in Architecture Engineering has been removed from this programme in 2011 and will not be further commented. The updated specialization on Renovation of Buildings, started only in 2013. Therefore at the time of the review there were no graduates of this specialization, no employers with experience of the specific graduate attributes of the programme, no final year project coursework. Nevertheless the Review Panel was furnished with sufficient evidence to make recommendations at this early stage of the programme's development.

The site visit included:

- discussions with senior faculty administration staff,
- discussions with staff responsible for preparation of the SER,
- discussions with teaching staff,
- discussions with students,
- discussions with social partners and alumni,
- examination of students coursework, excluding final year projects,
- visit of teaching premises and equipment including auditoria, library, computing facilities and laboratories.

The Review Panel found it necessary to get clarification of some issues reported in the SER. The Review Panel was satisfied with the clarifications provided during the site visit.

It is worth of mentioning that the same Review Panel also evaluated Bachelor programme in civil engineering (state code 612H20002) at VGTU. Many common aspects were present in both programmes. Therefore, the corresponding evaluation reports may contain some duplicate comments due to identical data, situation or concerns in order to be read independently.

The review was conducted in accordance with current regulations and guidance furnished to the Review Panel through documentation and training by the Centre for Quality Assessment in Higher Education of Lithuania (hereafter, SKVC). The Review Panel was also expertly assisted by Ms. Eglė Grigonytė in discharging its responsibilities to SKVC.

II. PROGRAMME ANALYSIS

1. Programme aims and learning outcomes

The study programme was originally devoted to “Architecture Engineering”. Following the recommendations of the previous external evaluation (2011), it was made aware to the Review Panel that a separate Master programme “Architecture Engineering” is being prepared and is about to be submitted for accreditation. It basically means that currently the evaluated study programme is oriented just to one specialisation – “Renovation of Buildings”.

One priority field of a National Indicative Programme (NIP) project in the civil engineering sector is “Construction and technology solutions for improving energy efficiency in buildings”. It can be understood from the SER that the present study programme has been updated in 2010 in order to take on board this priority field. This implies that the specialization in “Renovation of Buildings” aims at addressing relevant contemporary concerns from the building industry.

As is indicated in the SER and was approved during the meetings, before each updating, the stakeholders (professional associations and future employers) are consulted in order to take on board the market needs in Lithuania and abroad.

Two detailed tables, making the link between the study subjects and the intended learning outcomes on the one hand and between the intended learning outcomes, study subjects and aims of the programme on the other, are given in the SER. These tables clearly present the intended learning outcomes of the whole programme.

The aims and programme intended learning outcomes are stated on VGTU website and are easily accessible, both in Lithuanian and English language. However they need to be updated, as they are presented together with those of the “Architecture Engineering” specialisation, which is not organized any longer. It is also necessary to clarify the aims of the present programme which are not explicitly defined, and, in particular, nothing is mentioned about the energy efficiency of buildings. **In a very short term, the aims of the programme should be made explicit and fully compatible with the intended learning outcomes.**

According to the SER, the programme aims and learning outcomes are intended to follow those found in most of the Civil Engineering Faculties of European Universities. Through the EUCEET Association (European Civil Engineering Education and Training), the Faculty seems to be constantly informed about all the trends at European level. As though, it is clear that the programme should follow many recommendations from the European Union about energy

efficiency in buildings, which are now applied extensively in the building industry in Germany, Austria and Scandinavian countries. But despite of the intentions, the programme does not fully address these recommendations (see the next section for details).

Noticeable that in the SER, the study programme is briefly compared to other Master programmes in the field of civil engineering existing in Lithuania (at Kaunas University of Technology, Klaipėda University and within the Vilnius Gediminas Technical University itself). The attention should be paid that “Renovation of Buildings” specialisation differs from all other study programmes in Lithuania, according to the SER. In foreign universities there are Master programmes with a more general content than this one as well. However one can easily find modules dealing with building energy efficiency in Technical University (hereafter, TU) of Munich, TU Denmark, TU Vienna, University of Surrey, TU Prague, Weimar University, TU Gdansk, TU Tallinn, and TU Brno. VGTU has mobility cooperation agreements with many of these universities.

The programme is consistent with a level – Master and the qualification – degree in civil engineering offered. It is a two year full-time programme (120 ECTS). The graduates of this Master degree can work in building renovation and design organisations, in design audit offices, in certification bodies, in all public institutions or can continue for a PhD programme in Lithuania or abroad.

Regarding the name of the programme, the note should be made that if the name of the specialisation “Renovation of Buildings” clearly reflects the content and qualification offered, the name of the programme and degree (Master of Civil Engineering) is too broad and could lead to misinterpretation of the graduate competences. Review Panel suggests considering this issue.

2. Curriculum design

According to the SER, the curriculum is designed following a number of pertinent legal acts, in particular:

- Law on Higher Education and Research. 30 April 2009, No. XI-242, Vilnius;
- Order of the Minister for Education and Science of the Republic of Lithuania “On the Approval of the Descriptor of Study Cycles” 21 November 2011, No. V-2212;
- Order of Minister for Education and Science of the Republic of Lithuania order No. V-826 “Approval of the General Requirements for Master Degree Study Programmes” of 3 June 2010”;

- Order of the Minister for Education and Science of the Republic of Lithuania No. V-1487, issued on 29 July, 2011 “On Approval of Procedure of the External Evaluation and Accreditation of Study Programmes” and its amendments;
- Order of the Director of the Centre for Quality Assessment in Higher Education Lithuania No. 1-01-162, issued on 20 December 2010 “Methodology for Evaluation of Higher Education Study Programmes”.

All the legal requirements are met with regard to:

- Number of ECTS for the entire programme (120 ECTS)
- Study field study subjects (74 ECTS)
- Study subjects set by the university and chosen by a student (8 ECTS)
- Final thesis (39 ECTS)
- Number of studied and accounted study subjects during a term (less than 5)
- Number of ECTS per year (60 ECTS)
- Scope of contact work (22,4%)

There are 4 or 5 study subjects per semester for the first 3 semesters, together with “Final thesis 1”, “Final thesis 2” and “Final thesis 3” (for interim reports in order to check the progress and results). The last semester is entirely devoted to the final research and statements of the “Final thesis”. All semesters last for 20 weeks (15 weeks teaching course + 4 weeks session + 1 week independent work for the first 3 semesters). There are 30 ECTS for each semester of the 4 semesters. The amount of work thus seems evenly spread and there do not appear to be repetitive themes on the study subjects.

The SER lists all the study subjects for each semester. The same list is also on the VGTU website (for 2014, together with the specialisation “Architecture Engineering”). There is a link to the description of the content of all the study subjects (see: <https://medeine.vgtu.lt/programos/programa.jsp?fak=2&prog=64&sid=F&rus=U&klb=en>). The content and methods of teaching seem to be appropriate for the achievement of the intended learning outcomes examined in the previous section of this report.

As the programme aims at addressing the issue of renovation of buildings in contemporary concerns, **there should be a better balance in curriculum between the structural and sustainability subjects, including energy efficiency**. However, the Review Panel has observed an overrepresentation of structural subjects with respect to other important ones, like energy

efficiency, life-cycle assessment, economic and management aspects of renovation projects. This flaw should be removed in the short term.

The programme consists of 717 contact hours (including 330 hours of lectures – 10.3% of the whole programme and 270 hours of practice in Renovation of Buildings specialisation – 8.4%) and 2483 hours (77.6%) for independent work (including 1040 hours for the final thesis). During the site visit the Review Panel understood that an internship is also mandatory, but it is not clear in which conditions the students effectively carry it out – not enough information being provided on the corresponding academic provision – the intended learning outcomes, the learning assessment, the duration, the number of ECTS).

As mentioned above, the programme has been fully updated in 2010. A new update is planned during the 2013-2014 academic year. For the subjects which are for the moment taught, the content reflects the latest achievements in science and technologies. It is hoped that the collaboration with numerous stakeholders and European universities will ensure that the latest achievements are constantly taken on board.

3. Staff

There are currently 12 academic staff teaching on the Master degree programme in the Department of Reinforced Concrete and Masonry Structures and this number remains relatively stable. According to the SER, all academic staff members are highly qualified professionals with many years of teaching experience, and this can be verified from the data in the SER (analysis of CVs). The SER indicates that 100% of the teaching staff hold a PhD and that 25% of them are Professors. The Review Panel can approve that this meets the legal requirements with regard to qualifications of teachers. However, it is also noticeable that almost 50% of the teaching staff will reach retirement age in the next few years. Considering this, the Review Panel recommends elaborating a strategic human resources plan.

The staff/student ratio currently stands at 2.2:1 and is adequate to ensure the achievement of the intended learning outcomes. This favourable ratio is due to the small number of students enrolled in this programme (around 10). It is unclear about students intake in the coming years (no prospective has been made) and whether this high ratio is sustainable.

Staff mobility is moderate with participations in international seminars and workshops during the evaluation period. It is also noted that teachers have participated in 49 practical-research project works and this experience have been communicated to students by embedding the project works in the study programme.

The level of participation in research projects is adequate with academic staff having experiences in European Union framework projects and bilateral projects. However, there is a lot of room for increasing staff participation and the Department should actively encourage this. Supportive and encouraging mechanisms should be developed to allow the staff and students to integrate pan-Europe funding schemes, such as Erasmus+ and others.

Continuous staff development usually consists of two components: professional development and pedagogical development. In terms of professional development, it is encouraging to note that it is mandatory for staff members to go on study leave for one month over a 5-year period. In terms of pedagogical development, it is prudent to share good teaching practice (especially from senior staff) as a means to promote continuous pedagogical development. Hence, the Review Panel recommends that, notwithstanding current good standards of teaching, more collegial evaluation of teaching should be developed together with supportive mechanisms and sharing best practices.

4. Facilities and learning resources

There are enough auditoriums and laboratories space for the completion of the programme in the Faculty. Generally the lecture theatres are in good condition. The auditoriums are connected to the computer network and the study subjects are stored in a centralized data system.

Fully equipped reading rooms are available for students in the Faculty of Civil Engineering and the Faculty of Business Management. The library gives access to the students in a sufficient number of reference books in civil engineering, both in Lithuanian and foreign language. The library makes a reading room with Internet access available 24h a day for the students.

Teaching laboratories are available in Reinforced Concrete and Masonry Structures, Steel and Timber Constructions, and Research Laboratory of Buildings, Constructions and Materials. All these facilities were visited by the Review Panel, who can confirm that the teaching equipment provided for the construction study subjects in the programme is very good, being recently renovated. The test instruments and equipment are in good conditions. The laboratories have been sufficiently equipped with data acquisition systems connected to computers. However, laboratories dedicated to thermal subjects, power consumption and energy saving **have not been implemented**, despite of the importance of these subjects for the field of building renovations. A close cooperation in sharing learning equipment and teaching with other departments (involved in the environmental engineering or building technologies programmes) would be reasonable.

The Review Panel has been informed that the Department of Work Safety has issued rules regarding the safety conditions in laboratories and that the students have to conduct their experiments accordingly. The Review Panel still recommends improving the safety conditions in laboratories by systematically demarcating restricted areas where appropriate.

Noticeable that students perform practices in business companies and public institutions (LTD “INRE”, LTD “Vilnius Architecture studio”, Ministry of Environment) after the first year of studies, even though it is not planned in the study programme. In Review Panel’s point of view, this situation is kind of strange and the issue should be solved by the programme managers.

Also the attention should be paid that VGTU publishes its own journals, which is really praiseworthy. They are available for the students in the reading rooms. An online system is available to locate and hire library books. The university community has access to online databases (Science Direct, Wiley InterScience, Springer link to name the most popular ones, but many others as well). The students have access to specific publications in either the main reading-room of the library or in other reading rooms.

5. Study process and student assessment

The admission requirements are well-founded, rational and are in accordance with the LAMA BPO set rules. Applicants are required to have a Bachelor degree in civil engineering with credits in specific subjects.

The organisation of the study process ensures an adequate provision of the programme and the achievement of the intended learning outcomes. During the meeting with Review Panel, students confirmed, that they understand what they should achieve. The programme schedule with respect to both student learning and examinations is rational and the workload is well distributed. The last semester is devoted to the preparation and defence of the final thesis.

There are some provisions that the students are encouraged to participate in research or applied research activities. However, further attention should be paid to develop research skills for all of the students since the research skills are crucial for Master degree programme.

The student mobility is an issue, because of the fact that most students have full-time jobs and do not consider the possibility to participate.

The Review Panel is satisfied that academic and social support for the programme is good. Students can get good advice at all stages of their studies, from freshman, throughout their

studies and when considering career options (supported by VGTU Career Office). Academic and social support for students is provided by VGTU Students' Representation and the Vice Dean for Studies. Students can get scholarships and grants based on good academic achievements subjected to their personal circumstances and social situation. Sport and cultural activities are well organized. Sport basis is well equipped and VGTU also has many clubs and artistic groups to participate in. One-off grants are given for active cultural, sports and other public activities for the benefit of the university.

The Review Panel emphasizes that issues related to dormitory conditions, particularly regarding the management system, are also important elements of the students' study experience. Taking into account that 2 study programmes were evaluated by the same Review Panel, it is reasonable to highlight that the conditions should be improved, according to the opinions expressed by Bachelor and Master study programmes students.

The assessment system of students' performance is clear, adequate and publicly available. The Review Panel recommends that more transparent learning assessment and grading schemes should be adopted for course work, internships and Master thesis (by drafting a student guide clearly defining the learning objectives, content and assessment, including the grading system).

6. Programme management

Civil engineering Master study programme is organized by the Department of Reinforced Concrete and Masonry Structures. The programme is managed by a Study Programme Committee.

The Study Programme Committee, according to the SER, is supposed to include students' (1) and social partners' (1) representatives. However, during the on-site interviews, the Review Panel learned that their involvement is rather informal, and there is a lack of evidence of direct involvement in the decision making process. In order to improve the monitoring of the programme, VGTU has to consider formalizing the Study Programme Committee by scheduling meetings, with an explicit invitation to the stakeholders, with clear agendas and meeting minutes. A first step would be to approve the Study Programme Committee internal regulations and decision making process.

Further approval by Faculty Study Committee, Faculty Board and Senate is required for the changes made on the programme to be implemented, which is usual.

The Review Panel reiterates the recommendation (2011) of the previous evaluation that VGTU should examine more efficient use of resources and the necessity to have so many separate civil engineering programmes at VGTU. Specifically, the Review Panel is concerned with the financial sustainability of this programme in the absence of a clear Faculty commitment to provide state funding places and in overall is wondering if a specific programme for this specialization is required. **The Review Panel recommends considering deepening the need analysis for this programme, and this analysis should involve the stakeholders including potential future employers.** Furthermore, considering the large overlap between the programmes run by the Faculty of Civil Engineering and the Faculty of Environmental Engineering, the collaboration between the two faculties should be improved.

All the information and data related to the programme implementation has been accumulated in VGTU information system “Alma Informatika”.

Since 2007, an automated student surveying system has been successfully operating in the university information system. Two student surveys on the study subjects are organized annually using the automated surveying system: after the winter and spring sessions. The surveys are actively filled by the students.

The main responsibility for the programme quality assurance belongs to the Study Programme Committee and the Faculty Study Committee. The Dean of the faculty, in accordance with the regulations (Vilnius Gediminas Technical University General Faculty Provisions, approved by VGTU Senate Decree No. 57-1.4 on 29 May, 2012), organises and takes responsibility of the studies, educational and scientific work at the Faculty.

In 2012, the project “Introduction of Internal Study Quality Management System at VGTU” has been implemented. Internal study programme assessment is carried out in accordance with the Vilnius Gediminas Technical University Routine Study Programme Internal Assessment Regulation, approved by the VGTU Senate Decree No. 8-2.1 on 25 May, 2005. Procedures are clearly described in the SER. The Review Panel acknowledges improvement since the last external evaluation. It is however recommended to simplify the procedures, to better focus on the feedback and the implementation of the improvements. Good tools for surveying have been developed, but insufficient attention is given to provide feedback information to the stakeholders, who have contributed to the surveys. It is very important to inform the stakeholders about the impact of their suggestions.

Finally, the Review Panel regrets the relatively poor quality of the SER, where data and important information are either missing or confusing. **The Review Panel emphasize that SER is an important document for future quality evaluation and the Study Programme Committee should pay a better attention to this very central report in their quality assurance management.**

III. RECOMMENDATIONS

1. The aims of the programme should be made explicit and fully compatible with the intended learning outcomes.
2. If the programme aims at addressing the issue of renovation of buildings in contemporary concerns, then there should be a better balance in curriculum between the structural and sustainability subjects, including energy efficiency.
3. In the same perspective, laboratory experiments should be developed in order to match the various aspects of renovation of buildings.
4. In case of an absence of or insufficient Faculty allocation of state funding places, the long term viability of the programme should be secured by other sources of funding. This should be investigated explicitly in the next Self-evaluation Report.
5. An internal quality assurance system has been implemented, but should include more focus on implementation of improvements, including providing feedback to the stakeholders.
6. The Review Panel reiterates the recommendation (2011) of the previous external evaluation that VGTU examines the more efficient use of resources. The Review Panel questions whether or not it is necessary to have so many separate civil engineering programmes at VGTU.
7. The Review Panel has noticed good informal involvement of the students and social partners in programme management, but recommends formalizing such participation (e.g. setting up agendas, minutes of meetings and formal invitations to students and social partners).
8. The Review Panel recommends that, notwithstanding current good standards of teaching, more collegial evaluation of teaching should be developed together with supportive mechanisms and sharing the best practices.
9. Considering that almost 50% of the teaching staff will reach retirement age within the next 5 years, the Review Panel recommends elaborating a strategic human resources plan.
10. More transparent learning assessment and grading schemes should be adopted for course work, internships and final thesis.
11. Supportive and encouraging mechanisms should be developed to allow the staff and the students to participate in Erasmus+ and other programmes.
12. The Review Panel reiterates previous external evaluation (2011) recommendation regarding the required improvement of the student accommodation, including the dormitory management and quality, in order to enhance study conditions.

13. The safety conditions in laboratories should be improved by systematically demarcating restricted areas where appropriate.

IV. SUMMARY

This two year full-time programme leading to a Master of Civil Engineering qualification focuses on building technologies only. The aims of the present programme are not explicitly stated, and, in particular, nothing is mentioned about the energy efficiency of buildings. The aims of the programme should then be made more explicit and compatible with the intended learning outcomes. The curriculum is designed following pertinent legal acts fitting every legal requirement. The content of the study subjects is generally appropriate for the achievement of the intended learning outcomes. If the programme aims at addressing the issue of renovation of buildings in contemporary concerns, then there should be a better balance in curriculum between the structural and sustainability subjects, including energy efficiency. The staff is well qualified to deliver the programme and staff-student ratio is exceptionally good. The staff is properly engaged in research, professional bodies and self-continuous development. The facilities in terms of classrooms, libraries, reading rooms, and computers are very good. The study process and student assessment are generally adequate.

However, the Review Panel has noticed some additional areas of improvement. If the existing laboratory facilities are good, further laboratory experiments should be developed in order to match the various aspects of renovation of buildings. In the absence of university sufficient allocation of state funding places, the long term viability of the programme should be secured by other sources of funding. If the quality assurance is in place, it should better focus on implementation of improvements, including providing feedback to the stakeholders. The Review Panel reiterates 2011 recommendation of previous external evaluation that VGTU should examine the more efficient use of resources, particularly by avoiding delivering too closely related programmes in civil engineering. Moreover considering that almost 50% of the teaching staff will retire within 5 years, a strategic human resources plan should be elaborated. The involvement of stakeholders in the programme management should be made more formal. Regarding the intended learning outcomes and curriculum design, a better attention should be paid to the development of research abilities. The internationalization, both for students and staff, needs to be improved, better supported and encouraged. The learning assessment and grading schemes for coursework, internships and final thesis could be more transparent. If VGTU offers sufficient number of dormitories, it is recommended to improve their quality and management system, in order to enhance study conditions. Finally, the safety conditions in laboratories should be improved by systematically marking restricted areas where appropriate.

V. GENERAL ASSESSMENT

The study programme *Civil Engineering* (state code – 621H20003) at Vilnius Gediminas Technical University 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	2
2.	Curriculum design	2
3.	Staff	3
4.	Material resources	2
5.	Study process and assessment (student admission, study process student support, achievement assessment)	3
6.	Programme management (programme administration, internal quality assurance)	2
	Total:	14

*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.

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**VILNIAUS GEDIMINO TECHNIKOS UNIVERSITETO ANTROSIOS PAKOPOS
STUDIJŲ PROGRAMOS *STATYBOS INŽINERIJA* (VALSTYBINIS KODAS –
621H20003) 2014-06-18 EKSPERTINIO VERTINIMO IŠVADŲ NR. SV4-351 IŠRAŠAS**

<...>

V. APIBENDRINAMASIS ĮVERTINIMAS

Vilniaus Gedimino technikos universiteto studijų programa *Statybos inžinerija* (valstybinis kodas 621H20003) vertinama **teigiamai**.

Eil. Nr.	Vertinimo sritis	Srities įvertinimas, balais*
1.	Programos tikslai ir numatomi studijų rezultatai	2
2.	Programos sandara	2
3.	Personalas	3
4.	Materialieji ištekliai	2
5.	Studijų eiga ir jos vertinimas	3
6.	Programos vadyba	2
	Iš viso:	14

* 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

Ši dvejų metų trukmės nuolatinių studijų programa, kurią baigus suteikiamas Statybos inžinerijos magistro kvalifikacinis laipsnis, yra orientuota tik į statybų technologijas. Studijų programos tikslai nėra aiškiai apibrėžti, jeigu detaliau, juose visai neužsimenama apie pastatų energetinį efektyvumą. Atitinkamai programos tikslus reikėtų peržiūrėti ir suderinti su numatomais studijų rezultatais. Studijų programa yra sudaryta atsižvelgiant į teisės aktų nuostatas. Studijų dalykų turinys yra tinkamas studijų programos numatomiems studijų rezultatams pasiekti. Jeigu programos tikslas – nagrinėti aktualius pastatų renovacijos klausimus, tuomet programai turi būti būdingas tinkamai nustatytas balansas tarp struktūrinių ir darnios plėtros aspektų, įskaitant ir energijos efektyvumą. Dėstytojų kvalifikacija yra tinkama studijų programai vykdyti; santykis, susijęs su vienu dėstytoju tenkančiu studentų skaičiumi, yra geras. Programos akademinis personalas dalyvauja moksliniuose tyrimuose, profesinių organizacijų veikloje bei nuolat tobulina kvalifikaciją. Materialieji ištekliai, t. y. auditorijos, laboratorijos, bibliotekos, skaityklos

ir kompiuterinė įranga, yra išskirtinai geros kokybės. Studijų eiga ir studentų vertinimas yra vykdomi adekvačiai.

Vis dėlto ekspertų grupė identifikavo ir tobulintinas studijų programos sritis. Jeigu šiuo metu laboratorijų ištekliai yra geri, reikėtų daugiau dėmesio skirti laboratorijose atliekamiems eksperimentams, siekiant suderinti įvairius pastatų renovacijos aspektus. Tuo atveju, jeigu universitetas neskirs arba skirs nepakankamai valstybės finansuojamų studijų vietų, programos tolesniam vykdymui yra reikalingi kiti finansavimo šaltiniai. Kadangi vidinė studijų kokybės užtikrinimo sistema yra įdiegta, daugiau dėmesio reikėtų skirti socialinių dalininkų informavimui apie jų teikiamo grįžtamojo ryšio pagrindu atliktus pakeitimus. Ekspertų grupė atkreipė dėmesį į ankstesnio išorinio vertinimo metu (2011 m.) pateiktą rekomendaciją, dėl efektyvesnio Vilniaus Gedimino technikos universiteto išteklių panaudojimo įvertinimo galimybių, siekiant išvengti kelių pernelyg glaudžiai susijusių studijų programų vykdymo. Ši rekomendacija išlieka ir šiose vertinimo išvadose. Be to, atsižvelgiant į tai, kad per ateinančius penkerius metus beveik 50 proc. dėstytojų pasieks pensinį amžių, reikėtų parengti strateginį žmogiškųjų išteklių planą. Socialinių dalininkų įtraukimas į studijų programos vadybą turėtų būti formalesnis. Kalbant apie numatomus studijų rezultatus ir programos sandarą, daugiau dėmesio reikėtų skirti gebėjimų vykdyti mokslinius tyrimus ugdymui. Būtina skatinti dėstytojų ir studentų dalyvavimą tarptautinėje veikloje (didinti tarptautiškumą). Kursinių darbų, praktikų bei baigiamųjų darbų vertinimo sistema galėtų ir turėtų būti aiškesnė. Jeigu Vilniaus Gedimino technikos universitetas skiria studentams pakankamai gyvenamųjų vietų bendrabučiuose, reikėtų gerinti jų kokybę ir valdymo sistemą, siekiant studijų sąlygų pagerėjimo. Ir galiausiai, reikėtų gerinti saugaus darbo sąlygas laboratorijose, sistemingai pažymint draudžiamas zonas.

III. REKOMENDACIJOS

1. Antrosios pakopos studijų programos *Statybos inžinerija* tikslai turėtų būti aiškesni ir visiškai suderinti su numatomais studijų rezultatais.
2. Jeigu studijų programoje siekiama nagrinėti aktualius pastatų renovacijos klausimus, tuomet programai turi būti būdingas tinkamai nustatytas balansas tarp struktūrinių ir darnios plėtros aspektų, įskaitant ir energijos efektyvumą.
3. Reikėtų daugiau dėmesio skirti laboratorijose atliekamiems eksperimentams, siekiant suderinti įvairius pastatų renovacijos aspektus.
4. Jei fakultetas neskirs arba skirs nepakankamai valstybės finansuojamų vietų studentams, programos tolesniam vykdymui yra reikalingi kiti finansavimo šaltiniai. Tai turėtų būti išsamiai išnagrinėta kitoje savianalizės suvestinėje.

5. Vidinė studijų kokybės užtikrinimo sistema yra įdiegta, tačiau reikėtų skirti daugiau dėmesio jos pagrindu atliekamo studijų programos tobulinimo įgyvendinimui, įskaitant grįžtamojo ryšio teikimą socialiniams dalininkams.
6. Ekspertų grupė atkreipė dėmesį į ankstesnio išorinio vertinimo metu (2011 m.) pateiktą rekomendaciją – efektyvesnio Vilniaus Gedimino technikos universiteto išteklių naudojimo galimybių ištyrimą. Ekspertų grupei iškilo abejonų dėl būtinumo Vilniaus Gedimino technikos universitete vykdyti tiek daug atskirų statybos inžinerijos studijų programų.
7. Ekspertų grupė pastebėjo, kad neformaliai studentai ir socialiniai partneriai yra įtraukiami į studijų programos vadybos procesą, tačiau jų dalyvavimas turėtų būti formalizuojamas (pvz., sudaryti susitikimų darbotvarkes, protokoluoti posėdžius, taip pat siųsti studentams ir socialiniams partneriams oficialius pakvietimus į posėdžius).
8. Ekspertų grupė rekomenduoja, kad, nepaisant geros dėstytojų kokybės, turėtų būti taikoma daugiau dėstytojų koleginio vienas kito vertinimo metodų (dėstytojai turėtų vertinti vienas kito darbą), kartu taikant paramos mechanizmus ir dalijimąsi gerosiomis praktikomis.
9. Atsižvelgdama į tai, kad per ateinančius penkerius metus beveik 50 proc. dėstytojų pasieks pensinį amžių, ekspertų grupė rekomenduoja parengti strateginį žmogiškųjų išteklių planą.
10. Kursinių darbų, praktikos ir baigiamųjų darbų vertinimo sistema turėtų būti aiškesnė.
11. Reikėtų daugiau dėmesio skirti paramos ir skatinimo priemonėms, kurios užtikrintų studentų ir personalo dalyvavimą *Erasmus+* ir kitose mainų programose.
12. Ekspertų grupė atkreipė dėmesį ir taip pat kartoja ankstesnio išorinio vertinimo metu (2011 m.) pateiktą rekomendaciją dėl studentų apgyvendinimo sąlygų gerinimo, įskaitant bendrabučių vadybą ir kokybę.
13. Reikėtų gerinti saugaus darbo sąlygas laboratorijose, sistemingai pažymint draudžiamas zonas.

<...>

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.