



STUDIJŲ KOKYBĖS VERTINIMO CENTRAS

VILNIAUS GEDIMINO TECHNIKOS UNIVERSITETO  
**STUDIJŲ PROGRAMOS *STATYBOS INŽINERIJA***  
**(612H21002)**  
**VERTINIMO IŠVADOS**

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**EVALUATION REPORT**  
**OF *CIVIL ENGINEERING* (612H21002)**  
**STUDY PROGRAMME**  
AT VILNIUS GEDIMINAS TECHNICAL UNIVERSITY

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Išvados parengtos anglų kalba  
Report language – English

Vilnius  
2014

## DUOMENYS APIE ĮVERTINTĄ PROGRAMĄ

Studijų programos pavadinimas	<i>Statybos inžinerija</i>
Valstybinis kodas	612H21002
Studijų sritis	Technologijos mokslai
Studijų kryptis	Statybos inžinerija
Studijų programos rūšis	Universitetinės studijos
Studijų pakopa	Pirmoji
Studijų forma (trukmė metais)	Nuolatinė (4 m.), iššęstinė (6 m.)
Studijų programos apimtis kreditais	240 ECTS
Suteikiamas laipsnis ir (ar) profesinė kvalifikacija	Statybos inžinerijos bakalauras
Studijų programos įregistravimo data	Lietuvos Respublikos švietimo ir mokslo ministro 1997 m. gegužės 19 d. įsakymu Nr. 565

## INFORMATION ON EVALUATED STUDY PROGRAMME

Title of the study programme	<i>Civil Engineering</i>
State code	612H21002
Study area	Technological Sciences
Study field	Civil Engineering
Kind of the study programme	University Studies
Study cycle	First
Study mode (length in years)	Full-time (4 years), part-time (6 years)
Volume of the study programme in credits	240 ECTS
Degree and (or) professional qualifications awarded	Bachelor of Civil Engineering
Date of registration of the study programme	19 of May 1997, under the order of the Minister of the Ministry for Education and Science of the Republic of Lithuania No. 565

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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 the Bachelor study programme *Statybos inžinerija* (state code 612H21002; the name of the programme in English – *Civil Engineering*). This four year full-time (6 years part-time) programme leads to a Bachelor of Civil Engineering qualification.

The evaluation report is based on an analysis of the Self-evaluation Report (hereafter, the SER) (consisting of 36 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 February 2014.

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 employers of graduates and alumni,
- examination of students coursework, including 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 mentioning that the same Review Panel also evaluated Master programme in civil engineering (state code 621H20003) at VGTU, specialization: Renovation of Buildings. 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***

In the Self-evaluation Report is mentioned that the programme aims at training civil engineering bachelors in the field of structures and buildings, with the technical, economic and social challenges, as well as introducing them to geotechnics and its links with other branches of civil engineering and also considering impact of architecture forms.

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 detailed on the website of VGTU and are easily accessible, both in Lithuanian and English language.

The programme aims and intended learning outcomes match, generally speaking, those found in most of the Civil Engineering Faculties of European Universities. Nevertheless, in the present programme, it is desirable to stress more the acquisition of the first competences useful for conducting research, to address the importance of independent thinking and to take on board transferable skills (like management, for instance).

The study programme is briefly compared in the SER to other programmes in the same field existing in Lithuania, showing some distinctive features focusing on the design of modern buildings. It is also well in line with other similar programmes in Europe.

The study programme is regularly assessed, updated and upgraded. For instance, since the last assessment (2011), it has been updated in 2011 and 2013. According to the SER, many social partners participate in the process (professional associations, companies, etc.). This participation ensures that the needs of the labour market are taken into consideration and are properly reflected in the programme.

The programme aims and intended learning outcomes are consistent with a level – Bachelor studies and the qualification – degree in civil engineering offered. The full-time programme is delivered in 4 years, and the part-time one in 6 years (both 240 ECTS).

There are two specialisations on the study programme: “Structures and Design Management” (full-time or part-time studies) and “Geotechnics” (full-time studies only). These two specialisations start during the 5<sup>th</sup> term.

The programme graduates can start their career as designers, assistants of building project managers or construction site foremen. After 3 years of professional activity and obtaining a certification, they can become managers for design projects (Structures and Design Management) or for building foundations (Geotechnics).

The compatibility of the study programme, its intended learning outcomes and the positions which can be offered to the graduates is clear and adequate.

The attention should be paid that in the SER is clearly stated that: “This programme pays particular attention to design of modern buildings, estimations and design of the buildings’ structures, analysis of construction forms, computer design, impact of different effects and loads on construction strength, stability and rigidity.” Accordingly, the Review Panel suggests reconsider the name of the study programme, because in English “Civil Engineering” would mean that there is a large part devoted to bridges and other (infra)structures, while, in this programme case, it is not. The proper name could be “Building Engineering”.

## ***2. Curriculum design***

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 Approval of the Descriptor of Study Cycles”. 21 November 2011, No. V-2212;
- Order of the Minister for Education and Science of the Republic of Lithuania No. V-501, issued on 9 April, 2010 “On Approval of General Requirements of the First Degree and Integrated Study Programmes” and its amendments;
- Order of the Minister for Education and Science of the Republic of Lithuania No. ISAK-1026, issued on 15 May, 2009 “On Approval of Full-time and Part-time Study Mode Descriptions”;
- 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 in Lithuania No. 1-01-162, issued on 20 December 2010 “Methodology for Evaluation of Higher Education Study Programmes”.

Almost all the legal requirements are met with regard to:

- Number of ECTS of the entire programme (240 ECTS)
- Study field study subjects (183 ECTS)
- General university study subjects (15 ECTS)
- Study subjects set by the university and chosen by a student, fully optional study subjects (40 ECTS)
- Internships (16 ECTS)
- Final thesis (16 ECTS)
- Number of studied and accounted study subjects during a term (less than 7)
- Number of ECTS per year (60 ECTS)
- Scope of contact work (40,1% of study programme)

The only exception concerns the internships, where 16 ECTS claimed also includes the practices of the study subject in engineering geology during the 1<sup>st</sup> semester (2 ECTS) and of the study subject in geodesy during the 2<sup>nd</sup> semester (2 ECTS). According to the “General Requirements of First Degree and Integrated Study Programmes”, these two practices should be regarded as a part of the corresponding study subjects and are not eligible as internships, see art. I. 10. Thus, the total for the two internships (apprenticeship placements) is only 12 ECTS. This does not reach the minimum legal requirement, which is 15 ECTS.

There are seven study subjects per semester from the 1<sup>st</sup> to the 7<sup>th</sup> term and six study subjects during the 8<sup>th</sup> (last) one. 7 first semesters last 20 weeks (with 3-4 weeks of examination) and the 8<sup>th</sup> semester lasts 28 weeks, including 13 weeks for the preparation of the final thesis. There are from 5 to 7 obligatory mandatory subjects (theoretical courses) during the first 7 semesters and 4 during the 8<sup>th</sup> one. The amount of work thus seems evenly spread. There does not either appear to be not necessarily repetitive themes on the study subjects.

The SER lists all the study subjects, for each semester. The same list is also available on the VGTU website. There is a link to the description of the content of all the study subjects (see: <https://medeine.vgtu.lt/programos/programa.jsp?sid=F&prog=151&rus=U&metai=2013&fak=2&klb=en>). They are consistent with what is commonly expected for a Bachelor degree in Civil

Engineering. The content of the study subjects is also appropriate for the achievement of intended learning outcomes examined in the previous section of this report.

For both specialisations, the programme includes slightly less than 2600 teaching hours (40% of the whole programme), composed of lectures (22%); laboratory work (6%) and seminars (12%) and 3835 hours (60%) for independent work (included 400-430 hours for the final thesis), as well as practices (4 ECTS) and apprenticeship placements – see above. However, independent team work does not appear explicitly in the programme and should be better emphasized.

The number of hours, the variety of the study subjects and the methods used ensure achievement of the intended learning outcomes. Moreover, as already mentioned, the programme is regularly assessed, updated and upgraded. One of the goals declared in the SER is to constantly be at the level of other European Universities, considering the “new design standards and automated design technologies”. The priorities of the Horizon 2020 European framework are taken on board, with regard, for instance, to the ability to introduce innovations. Hence, the content of the programme adequately reflects the latest achievements in science and technologies.

### ***3. Staff***

There are currently 146 academic staff involved in the Civil Engineering Bachelor and Master study programmes at VGTU and this number remains relatively stable over the past 5 years, and staff turnover remains low. The staff/student ratio currently stands at 1:4.2, which is an exceptional number by international standards. However, it is apparent that not all staff contribute to this programme being evaluated, and it would be more prudent to include the number of full-time equivalent (FTE) staff involved in this programme alone. The Review Panel estimates that the revised staff-student ratio would still be relatively good.

An area to note is a high number of staff approaching retirement (>60 year of age). It is prudent to consider future staffing needs at this stage.

According to the SER, many academic staff members are the members of Lithuanian Association of Civil Engineers or other professional societies as well, and this is very positive. Out of the 146 staff, only 30 are Junior Lecturers or Lecturers. Cross referencing this with other information seems to indicate that some of these academic staff do not have a doctoral degree, and confirmed on site that this is only a small number. Furthermore, the SER indicates that the share of scientists teaching the study subjects varies between 89% (full-time studies in “Geotechnics”) to 100% (part-time studies in “Structures and Design Management”). Hence, the

Review Panel could approve that this meets the legal requirements with regard to qualification of teachers.

Staff mobility is relatively good with 39 staff members covering almost all European countries to deliver either seminars, lectures, or participating in conferences for 2012/13. However, the number of incoming visits is very limited (3 in the year 2012/13) compared to the healthier number of 23 in 2011/12. Since incoming visiting lecturers serves to expose the Department's staff and students to practices and current research done outside of VGTU, it is advantageous for the programme and departments involved to promote this activity. Supportive and encouraging mechanisms should be developed to better integrate Horizon 2020, Erasmus+ and other programmes.

According to the SER, a significant number of staff have good command of English (level satisfactory to good), and a good portion with very good command of English. However, the level of participation at international meetings and conferences, and journal publications remains low by European standards. As journal publications and conference participations are essential parts of continuous professional development and training, it is one of the criteria for junior staff's promotion, and they are rewarded in monetary terms for this activity. The Review Panel views this as a positive step forward.

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, the Review Panel is satisfied that junior staff members (Assistant Lecturer, Lecturer) are required to attend formal pedagogical training during their PhD studies. An area to consider in the future is the sharing of good teaching practice (by observation, group discussion, or training) as a mean to promote continuous pedagogical development.

As a conclusion, the Review Panel confirms that the teaching staff is adequately qualified to ensure the achievement of the intended learning outcomes.

#### ***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 an access to the students in a sufficient number of reference books in civil engineering field, both in Lithuanian and foreign languages. The library makes a reading room with Internet access available 24h a day for the students.

Teaching laboratories are available in Chemistry and Bioengineering, Engineering Geology, Soil Mechanics, Physics, Material Physics, Strength of Materials, Building Materials, Reinforced Concrete and Masonry Structures, and Steel and Timber Constructions. All these facilities were visited by the Review Panel, who can confirm that the teaching equipment provided for the programme is very good. Moreover, many laboratories have been recently renovated. The test instruments and equipment are in good conditions. The laboratories have been sufficiently equipped with data acquisition systems connected to computers. 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.

Practical training is included as a mandatory part of the programme. The internship is four weeks in summer time at the end of Year 2. The teachers are responsible for them. The task of practical training is assigned to the student by the tripartite agreement (student-partner-VGTU) registered in the Department. In 2012, 269 tripartite agreements were signed with civil engineering companies. The Builders Association companies have taken 84 % of all students. The rest of the students found their practical training places by themselves.

VGTU publishes its own journals, which is highly noticeable. 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 based on marks in Lithuanian language, mathematics, physics and foreign language. The Review Panel have noted the dramatic decreasing number of students (from 177 students in 2009 down to 73 in 2013) and encourages the Faculty of Civil Engineering to amplify the promotion strategy for both programmes (in Lithuanian and in English language), involving all the stakeholders.

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.

There are some provisions that the students are encouraged to participate in research or applied research activities, such as the participation in the annual conference “Science – the Future of Lithuania” organised by VGTU young scientists. However, further attention should be paid to develop research skills for all of the students since research abilities are expected to be trained during this Bachelor programme.

Regarding the student mobility opportunities, the Review Panel has appreciated the existing Erasmus agreements. The number of students benefiting from this programme (about 100 per year in recent years) is quite remarkable, making VGTU a leading institution in that perspective. The Review Panel has however noticed that there are still some issues with regard to a transfer system (making the recognition of ECTS abroad straightforward, for instance) to be addressed.

The Review Panel is satisfied that the 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). Part-time students are supported through individual study plans. 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 has many clubs and artistic groups on the university Campus. 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. There was a general agreement among current students and recent graduates that the student accommodation facilities could be improved to enhance study conditions.

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

system). The procedures for the final thesis defence are thorough. The topics and supervisors require approval of the Dean. Committee for Qualification Degrees is assembled for considering the defence of final theses.

Professional activities of the majority of graduates meet the programme providers' expectations, as confirmed by the employers and alumni during the site visit.

## ***6. Programme management***

Civil Engineering Bachelor study programme is co-organized by three departments of the Faculty of Civil Engineering: the Department of Reinforced Concrete and Masonry Structures, the Department of Steel and Timber Structures and the Department of Geotechnical Engineering. The programme is managed by a Study Programme Committee where each department is represented and can make proposals for improvement.

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 their direct involvement in the decision making process. In order to improve the monitoring of the programme, VGTU should consider formalizing the activity of the Study Programme Committee by scheduling meetings, with an explicit invitation to the stakeholders, with clear agendas and meeting minutes. A first step could be to approve the Study Programme Committee internal regulations and decision making process.

Further approval by the 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 2011 recommendation 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 strongly supports the integration of the Bachelor programme in "Bridges and Special Structures" (as an option) to this programme, seeking to offer a more comprehensive civil engineering Bachelor programme (series H200). Furthermore, considering the large overlapping between the programmes run by the Faculties of Civil and Environmental Engineering, the collaboration between both 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 clear 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.

### III. RECOMMENDATIONS

1. An internal quality assurance system has been implemented, but should include more focus on improvement implementation, including providing feedback to the stakeholders.
2. The Review Panel reiterates the recommendation (2011) of previous 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. Specifically, the Review Panel strongly supports the integration of the Bachelor programme in “Bridges and Special Structures” into this programme to make a more comprehensive civil engineering Bachelor programme (series H200).
3. 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).
4. The Review Panel confirms that the programme satisfies the legal requirements with a slight exception regarding the internships which must count at least for 15 ECTS. The practice components in engineering geology (2 ECTS) and in geodesy (2 ECTS) are part of the related subjects and should not be counted as internships.
5. The Review Panel acknowledges a good level of intended learning outcomes, but recommends measures that would improve the competences related to research, to independent thinking and to transferable skills, such as management. The Review Panel also recommends explicitly implementing team work learning activities in the programme.
6. 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.
7. The Review Panel has noted decreasing international activities among the staff. Therefore, supportive and encouraging mechanisms should be developed to better integrate Horizon 2020, Erasmus+ and other programmes.
8. More transparent learning assessment and grading schemes should be adopted for course work, internships and Bachelor thesis.
9. The Review Panel reiterates the recommendation (2011) of previous evaluation, regarding the required improvement of the student accommodation, including the dormitory management and quality, in order to enhance study conditions.
10. The safety conditions in laboratories should be improved by systematically demarcating restricted areas where appropriate.

#### **IV. SUMMARY**

This four year full-time (6 years part-time) programme leading to a Bachelor of Civil Engineering qualification focuses on structures and buildings, with two specialisations: “Structures and Design Management” and “Geotechnics”. The programme aims and intended learning outcomes match, generally speaking, those found in most of the Civil Engineering Faculties of European Universities. The curriculum is designed following pertinent legal acts fitting almost all the legal requirements with the only exception of a two little practices. The content of the study subjects is appropriate for the achievement of the intended learning outcomes on the first level studies in civil engineering. The staff is well qualified to deliver the programme and staff-student ratio is relatively good. The staff is properly engaged in research, professional bodies and self-continuous development. The facilities in terms of classrooms, laboratories, libraries, reading rooms and computers are very good. The study process and student assessment are generally adequate. The number of student exchanges is remarkable, making VGTU a leader in that matter. Bachelor in civil engineering programme is co-organized by three departments of the Faculty of Civil Engineering: the Department of Reinforced Concrete and Masonry Structures, the Department of Steel and Timber Structures and the Department of Geotechnical Engineering. Yet, the programme is managed properly and the quality assurance is in place.

However, the Review Panel has noticed some areas of improvement. If the quality assurance is in place, it should better focus on providing feedback to the stakeholders about the made changes. The Review Panel reiterates 2011 recommendation of the previous evaluation that VGTU examines the more efficient use of resources, particularly by avoiding delivering too closely related Bachelor programmes. 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 however be paid to the development of research abilities, transferrable skills and team work. The learning assessment and grading schemes for course work, 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 – 612H21002) 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	3
2.	Curriculum design	3
3.	Staff	3
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
	<b>Total:</b>	<b>19</b>

\*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 PIRMOSIOS PAKOPOS  
STUDIJŲ PROGRAMOS *STATYBOS INŽINERIJA* (VALSTYBINIS KODAS –  
612H21002) 2014-06-18 EKSPERTINIO VERTINIMO IŠVADŲ NR. SV4-350 IŠRAŠAS**

&lt;...&gt;

**V. APIBENDRINAMASIS ĮVERTINIMAS**

Vilniaus Gedimino technikos universiteto studijų programa *Statybos inžinerija* (valstybinis kodas – 612H21002) vertinama **teigiamai**.

Eil. Nr.	Vertinimo sritis	Srities įvertinimas, balais*
1.	Programos tikslai ir numatomi studijų rezultatai	3
2.	Programos sandara	3
3.	Personalas	3
4.	Materialieji ištekliai	4
5.	Studijų eiga ir jos vertinimas	3
6.	Programos vadyba	3
	<b>Iš viso:</b>	<b>19</b>

\* 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**

Šios 4 metų trukmės nuolatinų (6 metų iššestinių) studijų programos, kurią baigus yra suteikiamas Statybos inžinerijos bakalauro kvalifikacinis laipsnis, objektas yra statiniai ir pastatai; programoje yra dvi specializacijos – *Statybos konstrukcijų ir projektavimo vadybos* ir *Geotechnikos*. Programos tikslai ir numatomi studijų rezultatai atitinka daugelio Europos universitetų Statybos inžinerijos fakultetų vykdomų studijų programų tikslus ir numatomus studijų rezultatus. Studijų programa yra sudaryta atsižvelgiant į teisės aktų nuostatas, išskyrus nedidelę išimtį, susijusią su dviem praktikomis. Studijų dalykų turinys yra tinkamas statybos inžinerijos pirmosios pakopos studijų programos numatomiems studijų rezultatams pasiekti. 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. Mainuose dalyvaujančių studentų skaičius įspūdingas – Vilniaus Gedimino technikos universitetas pirmauja šioje srityje. *Statybos inžinerijos* bakalauro studijų programą vykdo trys Statybos fakulteto katedros: Gelžbetoninių ir mūrinių konstrukcijų, Metalinių ir medinių konstrukcijų ir Geotechnikos katedra. Šiuo metu studijų programos vadyba yra vykdoma efektyviai, įskaitant ir tinkamą kokybės užtikrinimo sistemos veikimą.

Vis dėlto ekspertų grupė identifikavo ir tobulintinas studijų programos sritis. Nepaisant to, kad vidinė studijų kokybės užtikrinimo sistema yra įdiegta, reikėtų daugiau dėmesio 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 naudojimo įvertinimo galimybių, siekiant išvengti kelių pernelyg glaudžiai susijusių studijų programų vykdymo. Ši rekomendacija išlieka ir šiose vertinimo išvadose. Socialinių dalininkų įtraukimas į studijų programos vadybą turėtų būti formalesnis. Kalbant apie numatomus studijų rezultatus ir programos sandarą, reikėtų daugiau dėmesio skirti mokslinių tyrimų vykdymo, grupinio darbo įgūdžių ir perkeliamųjų gebėjimų ugdymui. Kursinių darbų, praktikų bei baigiamųjų darbų vertinimo sistema galėtų ir turėtų būti aiškesnė. Jeigu Vilniaus Gedimino technikos universitetas skiria 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. 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.
2. 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 abejonių dėl būtinumo Vilniaus Gedimino technikos universitete vykdyti tiek daug atskirų statybos inžinerijos studijų programų. Ekspertų grupės įsitikinimu, siekiant sukurti aukštos kokybės, reikimus aspektus apimančią statybos inžinerijos bakalauro studijų programą (serija H200), į esamą programą reikėtų integruoti tiltus ir specialiuosius statinius.

3. 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).
4. Ekspertų grupės vertinimu, studijų programa atitinka teisės aktų reikalavimus, išskyrus nedidelę išimtį, susijusią su praktikai skiriamų kreditų skaičiumi – praktikai turi būti skiriama ne mažiau kaip 15 ECTS. Inžinerinės geologijos praktika (2 ECTS) ir inžinerinės geodezijos praktika (2 ECTS) yra minėtųjų studijų dalykų dalys ir neturėtų būti priskiriamos prie atskirų praktikų.
5. Ekspertų grupė pripažįsta, kad programos numatomi studijų rezultatai yra gerai apibrėžti, tačiau rekomenduotina taikyti priemones, kurios padėtų tobulinti mokslinių tyrimų vykdymo, savarankiško mąstymo ir perkeliamuosius studentų gebėjimus, tokius kaip vadyba. Ekspertų grupė taip pat rekomenduoja žymiai daugiau dėmesio skirti studentų darbui grupėse.
6. 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.
7. Ekspertų grupė atkreipė dėmesį į pasireiškiančią mažėjančią dėstytojų dalyvavimo tarptautinėje veikloje tendenciją. Siekiant skatinti dėstytojų dalyvavimą mainų programose *Horizontas 2020*, *Erasmus+* ir pan., turėtų būti sukurtos atitinkamos paramos priemonės.
8. Kursinių darbų, praktikos ir bakalauro baigiamųjų darbų vertinimo sistema turėtų būti aiškesnė.
9. 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.
10. Reikėtų gerinti saugaus darbo sąlygas laboratorijose, sistemingai pažymint draudžiamas zonas.

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Paslaugos teikėjas patvirtina, jog yra susipažinęs su Lietuvos Respublikos baudžiamojo kodekso<sup>1</sup> 235 straipsnio, numatančio atsakomybę už melagingą ar žinomai neteisingai atliktą vertimą, reikalavimais.

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<sup>1</sup> Žin., 2002, Nr.37-1341.