STUDIJŲ KOKYBĖS VERTINIMO CENTRAS

Panevėžio kolegijos

STUDIJŲ PROGRAMOS *STATYBA*

(valstybinis kodas – 653H20002)

VERTINIMO IŠVADOS

EVALUATION REPORT

OF *CONSTRUCTION*
(state code – 653H20002)

STUDY PROGRAMME

At Panevėžys College

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Išvados parengtos anglų kalba
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DUOMENYS APIE ĮVERTINTĄ PROGRAMĄ

Studijų programos pavadinimas	***Statyba***
Valstybinis kodas	653H20002
Studijų sritis	Technologijos mokslai
Studijų kryptis	Statybos inžinerija
Studijų programos rūšis	Koleginės studijos
Studijų pakopa	Pirmoji
Studijų forma (trukmė metais)	Nuolatinės (3), ištęstinės (4)
Studijų programos apimtis kreditais	180 ECTS
Suteikiamas laipsnis ir (ar) profesinė kvalifikacija	Statybos inžinerijos profesinis bakalauras
Studijų programos įregistravimo data	2003-01-09

INFORMATION ON EVALUATED STUDY PROGRAMME

Title of the study programme	***Construction***
State code	653H20002
Study area	Technological Sciences
Study field	Civil Engineering
Type of the study programme	College type studies
Study cycle	First
Study mode (length in years)	Full-time (3), Part-time (4)
Volume of the study programme in credits	180 ECTS
Degree and (or) professional qualifications awarded	Professional Bachelor of Civil Engineering
Date of registration of the study programme	01-09-2003

CONTENTS

I. INTRODUCTION

1.1. Background of evaluation process

The evaluation of on-going study programmes is based on the **Methodology for Evaluation of Higher Education Study Programmes,** approved by the Order No 1-01-162 of 20th December 2010 of the Director of the Centre for Quality Assessment in Higher Education (hereafter, SKVC). Evaluation is intended to help higher education institutions to constantly improve their study programmes and to inform the public about the quality of studies.

The evaluation process consists of the main following stages: *1) self-evaluation and the Self-evaluation Report prepared by a Higher Education Institution (hereafter, the HEI); 2) a visit of the Review Panel at the higher education institution; 3) preparation of the evaluation report by the Review Panel and its publication; 4) follow-up activities.*

On the basis of the study programme external evaluation SKVC takes a decision to accredit the study programme either for 6 years or for 3 years. If evaluation of the programme is negative such programme is not accredited.

The programme is **accredited for 6 years** if all evaluation areas were evaluated as "very good" (4 points) or "good" (3 points).

The programme is **accredited for 3 years** if none of the areas was evaluated as "unsatisfactory" (1 point) and at least one evaluation area was evaluated as "satisfactory" (2 points).

The programme **is not accredited** if at least one of evaluation areas was evaluated as "unsatisfactory" (1 point).

1.2. General

The application documentation submitted by the HEI follows the outline recommended by SKVC. Along with the Self-evaluation Report and Annexes, the following additional documents have been provided by the HEI before, during and/or after the site-visit:

No.	Name of the document
1.	MoMs of the programme committee
2.	QA documentation/manual
3.	Panevėžys College Practical Work Internship Procedure (2014)
4.	Panevėžys College Teacher and Researcher Professional Development Programmes for 2012-2014 and 2015-2017

1.3. Background of the HEI/Faculty/Study field/Additional information

Panevėžys College is a State Higher Educational Institution established by the Resolution of the Lithuanian Government in 2002. According to the Self Evaluation Report, the College consists of four departments: Management and Business, Technological Sciences, Biomedical Sciences and Social Sciences, which are found under the three faculties of the College. In the faculty of Technological Sciences the general engineering, construction engineering, electronics and electricity and informatics engineering study field programmes are found. In the list of the faculty accomplished study programmes there are seven programmes, whereas, the Construction study programme is one of them.

The Construction study programme was developed and registered in 2003, where the first full-time and part-time students were admitted. An external assessment of the programme was performed in 2011 by the Centre for Quality Assessment in Higher Education. The programme was accredited for a 6-year period. The study programme offers the degree of Professional Bachelor in Civil Engineering.

1.4.The Review Panel

The Review Panel was composed according to the *Description of the Review Team Member Recruitment*, approved by the Order No 1-01-151, 11/11/2011 of the Director of the Centre for Quality Assessment in Higher Education. The visit to the HEI was conducted by the Panel on 29th of November, *2016*.

1. **Assoc. Prof. George Markou (Chair of the Team)**

Associate Professor at ALHOSN University, United Arab Emirates.

2. **Assoc. Prof. Andrus Aavik**

Associate Professor at Tallinn University of Technology, Estonia.

3. **Assoc. Prof. Liga Gaile**

Associate Professor at Riga Technical University, Latvia.

4. **Assoc. Prof. Vincentas Vytas Stragys**

Vice Chairman at Lithuanian Association of Civil Engineers, Lithuania.

5. **Tautvydas Šimanauskas**

Masters student at Kaunas University of Technology (Building Services System field), Lithuania.

II. PROGRAMME ANALYSIS

2.1. Programme aims and learning outcomes

As stated in the Self-Assessment Report of the Engineering study programme CONSTRUCTION, the programme's aims are to prepare specialists with acquired knowledge and skills necessary to organize and technically lead the execution of construction and repair works in the framework of the qualification awarded. Also it aims to teach their graduates to apply rational and safe ways of performing construction works so as to take independent decisions thus be able to control activities/operations and work quality of various subunits. In addition to that, the graduate students are expected to successfully operate in competitive market environments, to have wide knowledge and professional expertise, while be capable of supporting their professional competences by engaging in life-long learning activities. The aims were found adequate but the English translation requires to be further improved (grammatical errors were found i.e. "to successfully operate in competitive market environment" → "to successfully operate in competitive market environment**s**" or "to successfully operate in **a** competitive market environment").

According to Table 3 in the SER, the correlation between the foreseeable study programme (learning) outcomes and the modules is presented. The total number of programme learning outcomes is 15 and divided into three main groups (this is in line with Order No V-964 of the Ministry of Education and Science) which are called "description of study results of the study level". After reading and assessing the programme learning outcomes (PLOs), the Review Panel (RP) found that additional refinement is required given that some of the PLOs describe a large number of skills within a single PLO. For example, C.2.2 describes the outcome that aims to derive graduates that will be able to "solve projection tasks in construction engineering branch, select proper building materials, constructional solutions of buildings in respect of construction environment, limiting conditions, aesthetic and architectural aspects, economic factors and stipulated usage conditions". This PLO incorporates different programme outcomes that makes it difficult to assess. The RP recommends that the programme should consider using not more than 10 refined PLOs that will be more general, therefore, make them manageable and easier to achieve through different assessment tools. At the current stage the programme does not have a quantitative method to assess the achievement of their PLOs. This should be performed after the PLOs have been modified according to the RP's recommendation.

The Final Thesis (as it is described in Table 5 Study subject place in the full-time study plan and Table 6 for the part-time study) is not included in Table 3 and its correlation with the PLOs is not provided. A matrix Table was provided during the visit were the Final Thesis is correlated with 8 out of the total 15 PLOs. The Final Thesis should be a course that will satisfy all of the PLOs given its nature (integration of all the students' received knowledge through the programme into a single project). Furthermore, the course called Final Practice (Internship), which is included in Table 3, it is only mapped to 6 out of the 15 PLOs. Internships are also courses that should be mapped with all of the programme's PLOs. It is also recommended as good practice, to map all courses with PLOs within the matrix and assess the full coverage of all PLOs and make sure that the mapping is as balanced as possible.

The RP asked the College's administration in regards to the existence of a website that will inform the public about the programme and its aims in English, where they responded that it is under construction. The College should make sure that the details of all programmes are available to the public in both languages (Lithuanian and English).

As stated in the SER, the programme has established contacts with the student practical training supervisors and heads of companies that the students are performing their practice (see provided Table 8 within SER). This shows a strong connection with the industry. This was also verified during the visit.

According to the Lithuanian Qualification Framework (Level 6), the aims and learning outcomes are consistent with the type level of studies and qualifications offered.

Finally, the name of the programme *(*Construction) was found to be compatible with the name of the field of study and the learning outcomes are compatible with the qualifications offered.

2.2. Curriculum design

The study programme Construction of the field Construction Engineering is delivered in a full – time study form (3 years) and a part-time study form (4 years). The scope of the study programme is to deliver 180 ECTS credits that correspond to 4800 academic hours. The curriculum design meets the first level study programme's legal requirements according to the Order of the Minister for Education and Science of Republic of Lithuania "General Requirements for the First Degree and Integrated Study Programmes" (9 April 2010 No V-501). According to the programme's study plan subjects of the study field, there are 138 ECTS (out of which Final Thesis has 12 ECTS and Practice 33 ECTS), while general subjects of the College

level studies have 15 ECTS out of the set minimum (no less than 15 ECTS) and no more than 7 subjects per semester. The number of the optional subjects (total of 27 ECTS) for full- and part-time studies differs by one optional subject, after comparing Table 5 and Table 6 of SER, but the amount of credits in order to complete the degree does not differ between the two modes (full- and part-time).

Although the study subjects are spread evenly and their themes are generally not repetitive, the second study year was found to be the most comprehensive because it includes almost all of the key study field subjects. Compering the description of the study field subjects of year I (contains mostly fundamental subjects like Applied Mathematics, Applied Physics and Chemistry) and year II (contains study field subjects like Applied Mechanics, Geotechnics, Building constructions, Construction Technologies and Calculations of constructions) the study hours of practical student work in year II are reduced by a third compared to year I. Consideration could be given on this aspect of the programme in order to balance the practice hours offered during each year.

According to SER (Picture 1) individual work of students makes up only 38%, which is less than usual for this type and level of studies. This is due to the increased contact hours for practices and other practical trainings (43% of total). The volume of theory lectures (19%) can be considered as appropriate.

Generally, the content of the subjects is consistent with the type and level of the studies, but some improvements could be made by including, for example, some general topics about the Quality Control of Building Construction or Fire Safety of Structures. The RP recommends to include the topic Statically Indeterminate Structures (which is the actual mechanical behavior of most real buildings). In addition to that, the inclusion of the topic Statically Indeterminate Structures in the programme is required so as to fulfill one of the defined learning outcomes "C.3.1. Will be capable to choose and adopt constructional and calculated schemes, to prepare constructional part of the project by using software, will be competent in processes of construction project implementation and management", which currently is not met.

Most of the Course descriptions have detailed and appropriate content for the course, but some Course descriptions are generalized and should be more specific and detailed (for example, see the key subjects of the study field Construction Technology and Construction Organization).

The English version of the study subject descriptions should be significantly improved (especially for the key subjects of the programme). In some cases, the content of the subject is inadequately worded, and is therefore incomprehensible for a foreign language speaker due to inappropriate terminology.

The RP noted that, following the earlier evaluation on 2010, the study programme has been updated in accordance with the recommendation "Efficiency of foreign language teaching" by adding a new subject "Communication in Foreign language" and updating the content of the existing one. Each subject ends with an individual work (IW) or exam (E).

Overall the construction of the Core Curriculum and scope of the programme Construction is appropriate to ensure the defined learning outcomes as it covers all of the civil engineering generic groups.

The content of the programme has a good potential in being up to date with the latest achievements in science and technologies, if the use of different digital solutions is further incorporated. Currently consideration is being given to incorporate the use of Building Information Modeling (BIM) into the study process as it is a growing trend and necessity in the modern construction industry.

2.3. Teaching staff

All the teachers (21 in 2015/16 a/y), working in the Construction study programme, have at least a Master's degree or an equivalent higher education degree. 15 teachers have graduated from different technical universities in Lithuania (Kaunas, Vilnius) and 7 of them from Vilnius University.

The RP found that Ph.D. holders teach 18,2 % of the study field subjects. The programme currently has 3 teachers with Ph.D. degrees.

The majority of the Construction programme teaching staff (18) are employed as full-time and 3 teachers as part-time (from other educational institutions, mainly from the Panevėžys Faculty of Kaunas University of Technology). It was found during the site visit that most of the teachers have besides the full-time College work individual businesses due to the low remuneration of College work, which mostly depends from the governmental policy and cannot be influenced by the College.

14 programme teachers (62%) have at least 3 years of practical experience in the subject field, while 6 teachers have experience in practical work in construction. The majority of the teaching staff has a very long teaching experience (only 2 teachers out of 21 have less than 5 years teaching experience, Annex 2 of SER), which is adequate for the staff of a professional College.

Teachers systematically participate in professional development seminars and practical internships at enterprises. Practical experience is updated at least every five years, which is evaluated during the teachers' certification process. The practical experience of the staff was found to be adequate.

To assess teachers' compliance and activities during the term of tenure, certification according to the qualification requirements for the position is carried out every 5 years. Last certification took place in 2014 and all the Construction study programme teachers were certified.

College practice tutor helps students to find a practice place (if required), determines the tasks of the practice and evaluates the practice report. All practice supervisors in companies have at least a Master's qualification degree related to the study field and at least three years of practical work experience in the study field.

The number of students in the various forms of classes (lectures, seminars, laboratory works, practice, etc.) is determined according to the Procedures of Designing the Workload (Director's order, 2012). The teacher's workload is 1440 hours per academic year (a/y), out of which 770 – 855 are contact hours. One lecturer supervises a maximum of 8 College graduate final projects per a/y, which is found to be a relatively large workload.

The Staff/Student Ratio is 1:16, which is ideal according to the international standards. Problems can occur because of the drop in student numbers. As a result of this, College employs less teachers with short-term contracts and relies more on the permanent staff. The College should seek methods in attracting more students in the programme.

The academic staff of the Construction study programme can be considered stable based on the teaching experience data (see SER Appendix 2). 2 lecturers retired and 3 young specialists with practical experience were hired during 2012-2016 and as a result of this alteration the quality of the studies has improved.

The average age of the faculty that teach in the study programme is 48 (10% are under 30, 38% are 31-45, 33% are 46-60 and 14% are over 60). The average age and the age distribution were found to be very good.

For the teacher professional development implementation, the College has constituted the Panevėžys College Teacher and Researcher Professional Development Programme for the period of 2012-2014 and 2015-2017, which are establishing the main competences and prioritized fields encouraged by the College and planned funds for the teachers' participation in the subject competence training and professional development activities. During the RP visit, it was found that, the sum for the professional development according to the aforementioned Programme is only 90 € per teacher per a/y, which is considered a very low financial support. At the same time, the staff stated that are satisfied with the College administration activities and support for their professional and pedagogical development. They also stated that if they received additional financial support for the professional activities it would further help them in participating in conferences.

The last Construction study programme evaluation suggested to establish a clear and formalized procedure for the renewal of the practical experience of staff. As a result of that suggestion, the College has established the Panevėžys College Practical Work Internship Procedure in 2014, which provides opportunities for staff practical skills development and encourages teacher to engage in practical activity internships in different companies.

During the assessment visit, the RP found that 12 out of 21 Construction programme teachers have participated in teachers' exchange visits funded by Erasmus+ programme or supported by other EU funded projects. The College has an annual Erasmus+ fund of 50,000 € for student and staff exchange. Currently the College has 35 partner institutions with whom they have close cooperation (the number of partners has doubled since the last programme assessment). The College also strives to raise teachers' English language knowledge level organizing English language courses for different language levels since 2012/2013. Further improvement is required in this area.

The RP found no information in the SER about foreign visiting teachers. Obviously, there is a need to increase the number of visiting teachers as the College itself has designated a lack of foreign teachers visiting the programme, as a weakness.

Construction programme teachers prepared 16 reports during 2011–2015, where the results were presented in conferences and the articles were published in scientific or applied science publications.

Active scientific application oriented and consulting work was carried out by faculty working on Ph.D. degree (3 faculty) and by several lecturers (5 faculty). Scientific activity is directed towards developing training applied skills (see Annex 3 of the SER).

College intends to decrease the lecturer contact-hour volume, by granting lecturers more time for research work and professional development.

Students (who participated in the meeting with the RP) rated the Construction study programme instructors with an overall 7 out of 10, which is deemed satisfactory.

2.4. Facilities and learning resources

The College students have a Campus that provide them with the ability to study within 6 building blocks. The RP found that, there are sufficient number of specialized classes, laboratories and training centres. All premises meet the requirements for fire prevention, hygiene and health norms. Twice per year the College commission of safety and health control performs an assessment of its Campus according the pre-mentioned requirements. Premises are adequate both in size and quality.

The Laboratories and Practical Training Centre were found to be sufficiently equipped with computers and relative software. The PC labs were found to be updated in comparison to the last evaluation. Improvement actions include the installation of the Robot Structural software which is able to connect to BIM models.

In the Material laboratory there are enough computer controlled equipment necessary for testing different types of building material. In general, teaching and learning equipment were found to be adequate.

During their studies students have to perform 6 types of practices: computer design, geodesy, technological, organization of construction business, industrial and graduation. The existing laboratories were found to be adequate in supporting these activities.

The RP verified that 15 companies are involved with the student industrial/final practices. Most of the companies are well known in Lithuania and some are also known abroad. For the

execution of the industrial practice, trilateral agreements are signed (student-College-enterprise). At the end of practice, students have to prepare and present a report. The Panevėžys College was found to have adequate arrangements and places for students to practice.

In regards to the teaching material, it was found that, there was a good cooperation between the College and other Lithuanian Universities, such as Vilnius Gediminas Technical University and Kaunas University of Technology. However, for students the main source of information is the College library, which has to support the study programme with educational books, methodological/technical aids and subscribed periodicals. European funds were used for the implementation of learning/teaching methods and promoting internationality. The library website provides the possibility to free access publications through e-library.

During the period after the last evaluation, the library obtained new books in foreign languages, however, but it is recommended to further enrich the available collection. Furthermore, the library needs to allocate the funds in order to purchase the Eurocodes for structural design, in order for the faculty and the students to be able to use it during their studies and projects.

2.5. Study process and students' performance assessment

Admission requirements are set according to the general provisions of the Association of Lithuanian Higher Education Institution for General Admission. The College does not have additional admission criteria, but the requirements can be found on the College webpage.

The competition score for the entrants is formed out of the two compulsory subjects (Mathematics and Lithuanian Language and Literature examinations), one of the alternative subjects (Physics examination or its annual grade) and one of the seven optional subjects. The College has set a minimal competition score, which students require to achieve in order to be admitted to the College. In 2015 the number of part-time students exceeded that of the full-time.

The 40-hour work week is divided into periods of contact work, practical training, individual work and an examination session, the duration of which is two to three weeks. The College has been using an information system called AKADIS since 2015, and all methodological information can be found on the information platform called MOODLE; students find this very convenient. The College has an assessment and recognition system of the competencies gained in extracurricular activities in the College, while students seem to be using it effectively. The final examinations of subjects that require PC labs, take place in computer classes and are equal

to the examinations in written exams. Individual tasks and students' final theses are checked for plagiarism by a Lithuanian e-system called "eLABa".

The College has a unit that organizes student research work and conferences annually, where students were found to be participating sufficiently. Topics of student research and presentations were also found to be consistent with their speciality. It has been noted that College students take part in events related to their speciality outside of College too, such as conferences in other institutions.

College students are given the opportunity to participate in Erasmus+ exchange programme and are informed about such mobility programmes during the first introductory week. Throughout the study year special events where students share their experience from Erasmus+ programmes are organised. The RP found that only a few students have travelled abroad within the mobility programmes. It is recommended that this number should be increased. The College administration recognised that they should pay more attention on encouraging students to participate in mobility programmes, thus the College has developed plans in order to host academic exchanges with new partners from Latvia: Daugavpils University and Rezekne University.

An introductory week which helps students integrate better into College life is organised and every group is assigned a tutor, who is responsible for the first-year student integration. Students are provided with consultations if required and the consultation timetable can be found on the College's webpage. Students have the opportunity to fill out anonymous surveys about study quality; however, the RP found this procedure of survey data analysis to be insufficient, as students claim they do not feel that their feedback has any effect. The students also stated that the rooms of the College were found to be cold. The RP recommends that the College investigates the claim and act accordingly so as to assure that the learning environment for both students and instructors is appropriate.

The College provides scholarships and loan systems for students if required and students are provided with the opportunity to live in a dormitory. The dormitories are renovated and students seem to generally be satisfied with the College's provided spaces for leisure time.

The principles of the assessment of learning outcomes are in accordance with the College learning outcome evaluation Order (since December 17th, 2014). Before lectures of a subject begin at the start of a new semester, teachers provide all required information for students about

the content of the subjects including the learning outcome assessment rubrics. The College applies an accumulating grade assessment. Implementation of the academic system AKADIS has promoted assessment transparency, which is an evidence of good practice.

Data of graduate employment monitoring shows that over 50% of graduates have found a job in their speciality during the first 6 months after finishing College, some of which immigrated so as to work abroad. Graduates stated that they are satisfied with their studies and they would recommend this study programme to others, even though they felt that after their studies they needed an adjustment period. Graduates and social partners stated that there is a need for more practice. The RP found that there is no connection between graduates and the College after they finish studies, thus it is recommended to establish an active Alumni club.

2.6. Programme management

The Construction programme is found under the main academic unit which is called Department (of technological sciences). The Department has a Head and the programmes have Chairs that report directly to him/her. This is a standard managerial configuration thus complies with the national and international standards. The RP met with the Chair of the programme, which was found to be very knowledgeable and active. Furthermore, the Department has established committees that are responsible for implementing the bylaws of the College and manage the quality assurance activities of the programmes.

The quality assurance is implemented according to the diagram presented in Picture 5 of the SER. This diagram requires further refinement so as to present the cycle of Plan – Do – Check – Act, where the role of each committee/department should be clear. The RP found the QA department adequate but requires further support given that it is understaffed. An analyst (specialized in statistical analysis) should be employed so as to provide the additional support to the QA Director in order to further assist the proper and deeper implementation of the analyses that are required to be performed in assessing the performance of each programme and the College itself.

As stated in the Construction study programme's SER, the programme collects and records the data that derive from the academic activities that take place each year and analyses the results in order to act accordingly. This was also verified during the visit. A 7-member committee that consists of 3 lecturers, 2 social partners, 1 student and the Head of the Department is responsible to monitor and assess the staff and their academic activities, while is responsible for collecting

data in regards to the students' performance. The committee, as reported within the SER, prepares procedural instructions for the preparation and defense of course papers, final thesis, keeps in touch with graduates, cooperates with social sharers, collects and analyses the data about material, information and human resources, the programme implementation process, provides the Head of the Department with suggestions on the academic staff qualification, monitors the engineering scientific innovations and encourage their application in the study programme and participates in promoting the study programme. This is evidence that the College strives to integrate a quality assurance culture, which is an example of good practice. Nevertheless, the complete analysis of the collected data should be further analyzed by the QA department that is currently understaffed, thus cannot perform the full set of the needed analyses.

As described in their report, the Construction programme included the recommendations from experts and the actions proposed or implemented by the programme so as to alleviate the allocated weaknesses. Nonetheless, the RP found that the proposed improvement actions in regards to the programme's weaknesses, were rather general and there is no evidence provided on the outcomes of the recommended actions. For example, in the case of the weakness described in the previous RP report in regards to the use of e-learning study methods by the faculty, the programme's response was to, "take actions in order to encourage teachers to be more interested in scientific innovations and technological achievements", thus invite them to training events. As a part of the professional development of the instructors and Quality Assurance culture, the College should organize such events by inviting experts that will be able to train their faculty members in using such e-platforms. Further financial motivation should be established so as for the faculty to be forced in participating in international conferences, thus improving their presentation abilities through e-based software and their English language abilities, which were found to be weak.

The SER states in section 6 that the Panevėžys College administrative and academic personnel, social partners, employers and students are actively participating in the quality assurance cycle in order to improve the programme and update the material of the courses. Involving all stakeholders is evidence of good practice and was also verified during the visit. The RP found that the social partners support, to their maximum extend, the Construction programme and are actively involved with its improvement. During the interview, when the social partners were asked to propose further methods in improving the programme's graduates, they expressed the opinion that the students' analytical skills require further improvement and that the specialization should improve through additional practice. The strong tights of the programme with its social

partners was recognized as its main strength and it was also found to be very constructive in terms of continuous improvement.

The RP also recommends that, in order to further improve the students' participation in the quality assurance cycle, the programme has to engage different methods so as to actively involve them in this procedure. The students, graduates and alumni should be better utilized (i.e. through electronic surveys) in the improvement procedure of the programme.

According to the RP's assessment on the QA procedures implemented at the Panevėžys College, it was found that the Lectures "interrogating" (as stated in the SER) students so as to assess the level at which the students feel that they have achieved their learning outcomes, is not a good practice given that the students may feel under pressure, therefore, will not answer the questions objectively. This is recommedned to be performed anonymously through surveys (electronically if possible).

According to the RP's assessment, the internal quality assurance measures are effective and efficient, as described within the SER. The College strives to apply QA procedures at all academic levels, which indicates evidences of good practice. Nonetheless, the QA department requires additional support, given that it was found to be understaffed. Further improvement is required in the method of assessing the course learning outcomes achievement, according to the students' performance. The development of detailed course portfolio for all courses would assist towards achieving this objective.

III. RECOMMENDATIONS

1. The aims of the programme were found adequate but the English translation requires to be improved (grammatical errors were found).
2. The RP recommends that the programme should consider using not more than 10 refined PLOs that will be more general, therefore, make them manageable and easier to achieve through different assessment tools.
3. It is also recommended as a good practice, to map all courses with PLOs within the matrix again (update the existing accordingly after the PLOs update) and assess the full coverage of all PLOs and make sure that the mapping is as balanced as possible.
4. The College should make sure that the details of all programmes are available to the public, through their web page, in both languages (Lithuanian and English).
5. The content of the programme needs to be reviewed as still some specialist areas are not covered in the program. The Structural Design section should be strengthened to achieve learning outcome C.3.1 of Table 3 in the SER.
6. English version of the programme and subject descriptions should be significantly improved.
7. Students are provided with the possibility to participate in mobility programs; nevertheless, the numbers of those that actually participated were found to be low. The College needs to improve this area by forming a relative strategy in motivating students towards this direction.
8. The students also stated that the rooms of the College were found to be cold. The RP recommends that the College investigates the claim and act accordingly so as to assure that the learning environment for both students and instructors is appropriate.
9. It is recommended to take actions to develop stronger lasting student-teacher relationships, e.g. an active Alumni club, and improve the implementation and discussion of student-suggested improvements in the study process.
10. Most of the teachers have besides the full time College work individual businesses due to the low remuneration of College work. That doesn't have negative influence to the students' learning outcomes achievement yet but College has to find possibilities to improve the salary policy to ensure the quality of the BES study programme.
11. The College should establish solid policies in regards to the funding of faculty in participating in national and international conferences every year and the financial support should be clearly stated through a pre-defined sufficient amount for each faculty member.
12. The College should develop a clear policy on how the funds of a project that is awarded to a faculty member are distributed and inform all faculty members so as for them to be aware of this policy. The overheads should not be more than 20% of the overall project funding.

13. It is also recommended to make all policies available to faculty through the College web site.
14. The RP recommends additional purchases of English books that relate to the Construction programme.
15. Furthermore, the library needs to allocate the necessary funds in order to purchase the Eurocodes for structural design.
16. The quality assurance is implemented according to the diagram presented in Picture 5 of the SER. This diagram requires further refinement so as to present the cycle of Plan – Do – Check – Act, where the role of each committee/department should be clear.
17. An analyst (specialized in statistical analysis) should be employed so as to provide the additional support to the QA Director in order to further assist the proper and deeper implementation of the QA analyses that are required to be performed in assessing the performance of each programme and the College itself.
18. Further financial motivation should be established so as for the faculty to be forced in participating in international conferences, thus improving their presentation abilities through e-based software and their English language abilities.
19. The RP also recommends that, in order to further improve the students' participation in the quality assurance cycle, the programme has to engage different methods so as to actively involve them in this procedure. The students, graduates and alumni should be better utilized (i.e. through electronic surveys) in the improvement procedure of the programme.
20. Surveys given to students, graduates, alumni and social partners should be done electronically so as to provide the participants the feeling of anonymity.
21. Further improvement is required in the method of assessing the course learning outcomes achievement, according to the students' performance. The development of detailed course portfolio for all courses would assist towards achieving this objective.

IV. EXAMPLES OF EXCELLENCE *

The connections of the programme with its social partners illustrates the strong ties with the industry. Social partners illustrated enthusiasm and expressed the need of further supporting the programme with additional collaboration with the College, which is a clear indication of excellent relationship and constructive partnership that will guarantee continuous improvement of the Construction programme and numerous employment opportunities for its graduates.

IV. SUMMARY

The programme aims were found adequate but the English translation requires to be improved (grammatical errors were found i.e. “to successfully operate in competitive market environment” → to successfully operate in competitive market environment**s**”). The total number of programme outcomes is 15 and divided into three main groups, which are called “description of study results of the study level”. After reading and assessing the programme (learning) outcomes (PLOs), the Review Panel (RP) found that additional refinement is required given that some of the PLOs describe a large number of skills within a single PLO. In addition to that, the number of PLOs should not be more than ten. The RP asked the College’s administration in regards to the existence of a website that will inform the public about the programme and its aims in English, where they responded that it is under construction.

The curriculum design meets the legal requirements and the content of the subjects and modules is consistent with the type and level of the studies. The subject modules are consistent with the College type studies of the Professional Bachelor Degree and are in general appropriate for the achievement of the intended learning outcomes. The subject module learning outcomes are generally consistent with the programme learning outcomes, although they need to be reviewed to ensure consistency. The content of the programme needs to be reviewed as still some specialist areas are not covered in the program. English version of programme and subject descriptions should be significantly improved.

The study programme is provided by staff meeting legal requirements and the qualification of the teaching staff is adequate to ensure learning outcomes. The Practical Work Internship Procedure has been established in 2014 as a result of the previous evaluation suggestion. The Staff/Student Ratio is 1:16, which is ideal according to international norms. The teaching staff turnover is low and able to ensure an adequate provision of the programme. The staff development activities are reviewed every 5 years. More possibilities to increase the teachers’ professional development funding needs to be established. The number of foreign visiting teachers has to be increased.

There are sufficient number of specialized classes, laboratories and training centres. All premises meet the requirements for fire prevention, hygiene and health norms. The Laboratories and Practical Training Centre are sufficiently equipped with computers and relative software. For executing industrial practices, trilateral agreements are signed (Student-College-Enterprise). 15

companies are involved for the student industrial/final practices. Most of the companies are well known in Lithuania and some are also known abroad. It was found that, the College library has a good cooperation with other Lithuanian University livraries, such as Vilnius Gediminas Technical University and Kaunas Technology University. The library needs to purchase the Eurocode standards for structural design.

Admission requirements are clear and publicly available; nevertheless, some additional admission criteria such as extracurricular achievements could be added. Students are provided with the possibility to participate in mobility programmes, nonetheless they are not sufficiently participating, therefore, this area requires further improvement. The active use of electronic information platforms supports the study process very well, and increases student assessment transparency. It is recommended to take actions to develop stronger lasting student-teacher relationships, e.g. an active Alumni club. It also required to improve the implementation and discussion of student-suggested improvements in the study process. The majority of graduates meet the programme expectations and the programme is valued by social partners; however, it is suggested by graduates and social partners that practical skills need to be enhanced by adding more practice during their studies.

The College Department has a Head and the programmes have Chairs that report directly to him/her. This is a standard managerial configuration thus complies with the national and international standards. The RP met with the Chair of the programme, which was found to be very knowledgeable and active. According to the RP's assessment, the internal quality assurance measures are effective and efficient, as described within the SER. The College strives to apply QA procedures at all academic levels which indicates evidences of good practice. Nonetheless, the QA department requires additional support, given that it was found to be understaffed. Further improvement is required in the method of assessing the course learning outcomes achievement, according to the students' performance. The development of detailed course portfolio for all courses would assist towards achieving this objective.

V. GENERAL ASSESSMENT

The study programme *Construction* (state code – 653H20002) at Panevėžys College is given a positive evaluation.

Study programme assessment in points by evaluation areas.

No.	Evaluation Area	Evaluation of an area in points*
1.	Programme aims and learning outcomes	2
2.	Curriculum design	2
3.	Teaching staff	3
4.	Facilities and learning resources	3
5.	Study process and students' performance assessment	3
6.	Programme management	3
	Total:	**16**

*1 (unsatisfactory) - there are essential shortcomings that must be eliminated;
2 (satisfactory) - meets the established minimum requirements, needs improvement;
3 (good) - the field develops systematically, has distinctive features;
4 (very good) - the field is exceptionally good.

Grupės vadovas: Team leader:	Assoc. Prof. George Markou
Grupės nariai: Team members:	Assoc. Prof. Andrus Aavik
	Assoc. Prof. Liga Gaile
	Assoc. Prof. Vincentas Vytis Stragys
	Tautvydas Šimanauskas

PANEVĖŽIO KOLEGIJOS PIRMOSIOS PAKOPOS STUDIJŲ PROGRAMOS *STATYBA* (VALSTYBINIS KODAS – 653H20002) 2017 KOVO 13 D. EKSPERTINIO VERTINIMO IŠVADŲ NR. SV4-43 IŠRAŠAS

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V. APIBENDRINAMASIS ĮVERTINIMAS

Panevėžio kolegijos studijų programa *Statyba* (valstybinis kodas – 653H20002) 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	3
5.	Studijų eiga ir jos vertinimas	3
6.	Programos vadyba	3
	Iš viso:	**16**

* 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)

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IV. SANTRAUKA

Studijų programos tikslai tinkamai suformuluoti, tačiau jų vertimą į anglų kalbą reikėtų peržiūrėti (nes buvo pastebėta gramatikos klaidų, pavyzdžiui, vietoje to successfully operate in competitive market environment turėtų būti to successfully operate in competitive market environments). Iš viso yra 15 studijos programos rezultatų. Jie suskirstyti į tris pagrindines grupes, kurios pavadintos „studijų lygmens studijų rezultatų aprašu“. Peržiūrėjusi ir išanalizavusi studijų programos rezultatus ekspertų grupė nusprendė, kad reikia juos pertvarkyti, nes kai kurie rezultatai apima daug gebėjimų. Be to, studijų rezultatų turėtų būti ne daugiau nei dešimt. Ekspertų grupei pasiteiravus Kolegijos administracijos apie galimybę sukurti Kolegijos svetainėje tinklalapį, kuriame informacija apie studijų programą ir jos tikslus būtų skelbiama anglų kalba, buvo atsakyta, kad toks tinklalapis yra kuriamas.

Programos sandara atitinka teisinius reikalavimus; dalykų ir (ar) modulių turinys atitinka studijų rūšį ir lygmenį. Dalykų moduliai atitinka profesinio bakalauro laipsnio koleginių studijų rūšį ir yra tinkami numatytiems studijų rezultatams pasiekti. Dalykų modulių rezultatai iš esmės dera su studijų programos rezultatais, tačiau juos reikėtų peržiūrėti, kad jie būtų nuoseklesni. Reikia peržiūrėti programos turinį, nes į ją nėra įtraukti kai kurie specialieji dalykai. Ypač reikia pagerinti studijų programos ir dalykų aprašymus anglų kalba.

Dėstytojų kolektyvas atitinka teisinius reikalavimus, dėstytojų kvalifikacija tinkama studijų rezultatams pasiekti. Atsižvelgiant į pasiūlymus, pateiktus per ankstesnį vertinimą, 2014 m. buvo įdiegti Praktikos nuostatai. Dėstytojų ir studentų santykis – 1:16. Tai idealus santykis pagal tarptautinius standartus. Maža dėstytojų kaita užtikrina tinkamą studijų programos vykdymą. Dėstytojų profesinio tobulėjimo rezultatai vertinami kas 5 metai. Reikia ieškoti daugiau galimybių finansuoti dėstytojų profesinį tobulinimąsi. Pageidautina, kad atvyktų daugiau kviestinių dėstytojų iš užsienio.

Specializuotų auditorijų, laboratorijų ir mokymo centrų pakanka. Visos patalpos atitinka priešgaisrinės saugos, higienos ir sveikatos normas. Laboratorijos ir mokymo centrai pakankamai aprūpinti kompiuterine ir programine įranga. Sudaromos trišalės praktikos atlikimo pramonės įmonėse sutartys (tarp studentų, Kolegijos ir įmonių). 15 įmonių suteikia studentams galimybę atlikti gamybinę / baigiamąją praktiką. Dauguma įmonių gerai žinomos Lietuvoje, o kai kurios ir užsienyje. Kolegijos biblioteka glaudžiai bendradarbiauja su kitų Lietuvos universitetų bibliotekomis, pavyzdžiui, Vilniaus Gedimino technikos universiteto ir Kauno technologijos universiteto bibliotekomis. Biblioteka turi įsigyti konstrukcijų projektavimo eurokodus.

Studentų priėmimo reikalavimai yra aiškūs ir viešai skelbiami, tačiau į juos būtų galima įtraukti papildomus pasiekimus. Studentams suteikiama galimybė dalyvauti judumo programose, tačiau dalyvaujančiųjų skaičius nepakankamas, ši sritis reikalauja tolesnio tobulinimo. Aktyviai naudojama elektroninė informacijos platforma pasitarnauja studijų procesui ir padidina studentų vertinimo skaidrumą. Rekomenduojama užtikrinti glaudesnius ilgalaikius ryšius tarp studentų ir dėstytojų, pavyzdžiui, skatinant aktyvesnę alumnų klubo veiklą, ir atsižvelgti į studentų pasiūlymus, kaip patobulinti studijų procesą. Dauguma absolventų pasiekia studijų programos siekinius ir studijų programą gerai vertina socialiniai partneriai, tačiau, studentų ir socialinių

partnerių nuomone, reikia labiau ugdyti praktinius gebėjimus – į studijas įtraukti daugiau praktikos.

Kolegijos fakultetas turi dekanę ir jai tiesiogiai atskaitingus studijų programų vadovus. Tai yra standartinė vadovavimo struktūra, atitinkanti nacionalinius ir tarptautinius standartus. Ekspertų grupė susitiko su studijų programos vadovu, kuris ekspertų grupei pasirodė labai sumanus ir aktyvus. Ekspertų grupės vertinimu, vidinės kokybės užtikrinimo priemonės veiksmingos ir tikslingos, kaip nurodyta Savianalizės suvestinėje. Kolegija siekia taikyti kokybės užtikrinimo procedūras visuose akademiniuose lygmenyse – tai yra gerosios praktikos pavyzdys. Tačiau kokybės užtikrinimo skyriui reikia papildomos paramos, ypač atsižvelgiant į tai, kad jo darbuotojų skaičius yra per mažas. Reikia dar labiau tobulinti kiekvieno studijų dalyko pasiekimus, naudojant metodus, nukreiptus į studijų rezultatų patikrinimą. Norint pasiekti šį tikslą, galima parengti išsamius kiekvieno dalyko aplankus.
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IV. GEROSIOS PRAKTIKOS PAVYZDŽIAI

Ryšiai su studijų programos socialiniais partneriais rodo, kad glaudžiai bendradarbiaujama su pramonės įmonėmis. Socialinių partnerių palaikymas ir ketinimas toliau remti studijų programą papildomai bendradarbiaujant su Kolegija yra stiprių ryšių ir konstruktyvaus bendradarbiavimo pavyzdys, rodantis, kad studijų programa *Statyba* bus nuolat gerinama ir kad jos absolventai turės daug įsidarbinimo galimybių.

<…>

III. REKOMENDACIJOS

1. Studijų programos tikslai tinkamai suformuluoti, tačiau jų vertimą į anglų kalbą reikėtų peržiūrėti (nes buvo pastebėta gramatikos klaidų).
2. Ekspertų grupė rekomenduoja pergrupuoti studijos programų rezultatus, juos labiau apibendrinant, kad jų būtų ne daugiau nei 10 ir kad jie būtų valdomi bei lengviau pasiekiami. Jų vertinimui pasitelkti įvairias vertinimo priemones.
3. Rekomenduojama sudaryti visų dalykų ir studijų programos rezultatų matricą (įtraukti atnaujintus studijų rezultatus), užtikrinti, kad matrica apimtų visus studijų programos rezultatus ir nustatyti sąsajas tarp dalykų ir studijų programos rezultatų.

4. Kolegija turi užtikrinti, kad informacija apie visas studijų programas būtų viešai skelbiama Kolegijos internetinėje svetainėje (lietuvių ir anglų kalbomis).

5. Reikia peržiūrėti programos turinį, nes programa neapima tam tikrų specialiųjų dalykų. Turi būti pagerinta struktūrinė sandaros dalis, kad būtų pasiekti Savianalizės suvestinės 3 lentelėje nurodyti C.3.1 studijų rezultatai.

6. Peržiūrėti ir patobulinti studijų programos ir dalykų aprašus anglų kalba.

7. Studentams suteikiama galimybė dalyvauti mobilumo programose, tačiau dalyvaujančiųjų skaičius mažas. Kolegija turi spręsti šį klausimą – parengti strategiją, kaip motyvuoti studentus.

8. Studentai minėjo, kad Kolegijos auditorijose šalta. Ekspertų grupė rekomenduoja atkreipti dėmesį į šį nusiskundimą ir užtikrinti tinkamą mokymosi aplinką studentams ir dėstytojams.

9. Rekomenduojama užtikrinti glaudesnius ilgalaikius ryšius tarp studentų ir dėstytojų, pavyzdžiui, skatinti aktyvesnę alumnų veiklą, ir atsižvelgti į studentų pasiūlymus, kaip patobulinti studijų procesą.

10. Dauguma visą darbo dieną Kolegijoje dirbančių dėstytojų turi papildomą darbą, nes už darbą Kolegijoje gauna gana mažą atlyginimą. Nors tai netrukdo studentams pasiekti studijų rezultatų, Kolegija turi apsvarstyti galimybes, kaip būtų galima pagerinti atlyginimų politiką ir taip būtų užtikrinta studijų programos Statyba kokybė.

11. Kolegija turi parengti fakulteto dalyvavimo nacionalinėse ir tarptautinėse konferencijose kiekvienais metais finansavimo strategiją, numatant tikslią ir pakankamą finansinės paramos sumą kiekvienam fakulteto darbuotojui.

12. Kolegija turi parengti aiškią strategiją, pagal kurią fakulteto darbuotojams būtų skirstomos lėšos projektams vykdyti, ir supažindinti su šia strategija visus fakulteto narius. Pridėtinės projekto vykdymo išlaidos neturėtų sudaryti daugiau nei 20 % visos projekto finansavimo sumos.

13. Rekomenduojama, kad visos strategijos būtų skelbiamos Kolegijos internetinėje svetainėje.

14. Ekspertų grupė rekomenduoja papildomai įsigyti studijų programai Statyba skirtų knygų anglų kalba.

15. Biblioteka turi skirti lėšų konstrukcijų projektavimo eurokodų įsigijimui.

16. Studijų kokybė užtikrinama vadovaujantis Savianalizės suvestinės 5 pav. pateikta schema. Šią schemą reikia patobulinti, kad joje būtų pavaizduotas ciklas „Planuok–Daryk – Tikrink–Veik“, aiškiai apibrėžiant kiekvieno komiteto ir/ar fakulteto vaidmenį.

17. Reikia įdarbinti analitiką (atliekantį statistines analizes), kuris padėtų kokybės užtikrinimo vadovui atlikti ir įgyvendinti išsamias kokybės vertinimo analizes siekiant įvertinti kiekvienos studijų programos kokybę bei pačios Kolegijos darbo kokybę.

18. Numatyti finansines lėšas siekiant paskatinti fakulteto dėstytojus dalyvauti tarptautinėse konferencijose, ugdyti jų gebėjimus rengti prezentacijas naudojantis elektroninėmis programinėmis priemonėmis ir gerinti anglų kalbos žinias.

19. Kad studentai dar aktyviau dalyvautų kokybės užtikrinimo procese, ekspertų grupė rekomenduoja pasitelkti skirtingus metodus studentų įtraukimui. Reikia dar labiau skatinti studentų, absolventų ir alumnų dalyvavimą tobulinant studijų programą (rengti jų elektronines apklausas).

20. Studentų, absolventų, alumnų ir socialinių partnerių apklausos turi būti elektroninės, kad būtų užtikrintas apklausų dalyvių anonimiškumas.

21. Reikia dar labiau tobulinti kiekvieno studijų dalyko pasiekimus, naudojant metodus, nukreiptus į studentų rezultatų patikrinimą. Norint pasiekti šį tikslą, galima parengti išsamius kiekvieno dalyko aplankus.

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

Vertėjos rekvizitai (vardas, pavardė, parašas)