STUDIJŲ KOKYBĖS VERTINIMO CENTRAS

ALEKSANDRO STULGINSKIO UNIVERSITETO

STUDIJŲ PROGRAMOS *HIDROTECHNINĖS STATYBOS INŽINERIJA* (612H23002) VERTINIMO IŠVADOS

EVALUATION REPORT OF *HYDRAULIC ENGINEERING* (612H23002) STUDY PROGRAMME AT ALEKSANDRAS STULGINSKIS UNIVERSITY

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Išvados parengtos anglų kalba
Report language – English

Vilnius
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DUOMENYS APIE ĮVERTINTĄ PROGRAMĄ

Studijų programos pavadinimas	***Hidrotechninės statybos inžinerija***
Valstybinis kodas	612H23002
Studijų sritis	Technologijos mokslai
Studijų kryptis	Statybos inžinerija
Studijų programos rūšis	Universitetinės studijos
Studijų pakopa	Pirmoji
Studijų forma (trukmė metais)	Nuolatinė (4 m.), ištęstinė (6 m.)
Studijų programos apimtis kreditais	240 ECTS
Suteikiamas laipsnis ir (ar) profesinė kvalifikacija	Vandens 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	***Hydraulic Engineering***
State code	612H23002
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 Water 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

CONTENTS

I. INTRODUCTION

This report presents the findings of an evaluation of Bachelor study programme ***Hidrotechninės statybos inžinerija*** (state code 612H23002), study programme name in English – ***Hydraulic Engineering***, at Aleksandras Stulginskis University (hereafter, ASU). This four year full-time (6 years part-time) programme leads to a Bachelor of Water Engineering qualification.

The evaluation of the programme is based on the analysis of the Self-evaluation Report (hereafter, the SER) (consisting of 40 pages, excluding annexes) and the information gathered by the Review Panel during a site visit to ASU on 6 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 theses,
- 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 hydraulic engineering (state code 621H23002) at ASU. 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.

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 in Lithuania (hereafter, SKVC). The Review Panel was also expertly assisted by Ms. Eglė Grigonytė in discharging its responsibilities to SKVC.

II. PROGRAMME ANALYSIS

1. Programme aims and learning outcomes

The programme aims at providing knowledge on theories, methods and technologies of modern engineering technologies of water resources, and at developing the abilities providing for the analysis of the sustainable development of water resources. The aim is further cast into 4 major programme intended learning outcomes (knowledge and application, research abilities, special abilities and social/individual abilities). There is a very clear structure on how the programme aims and intended learning outcomes fit with the professional and academic requirements; it can be found on the university website (see: http://www.asu.lt/pradzia/en/41748). Also the attention should be paid that in the SER very clearly is showed an indication of engagement with professional bodies, such as LALRE, ULWME, and with the Ministry of Agriculture of the Republic of Lithuania.

The programme intended learning outcomes comply with the description of qualifications level 6 of the Description of Lithuanian Qualifications Framework and Study Cycles Descriptor and are developed in accordance to the Bologna Process, as a graduate clearly acquires qualification and knowledge and has the ability to pursue the activity related to diverse water engineering tasks and their content. Hence, the programme aims and intended learning outcomes are clear, well defined and are consistent with the type and level of studies and the level of qualification offered.

The evidence provided in the SER fully indicates that the name of the programme – *Hydraulic Engineering*, the intended learning outcomes, content and qualification offered are compatible with each other. The Review Panel found that the abilities of the graduates and knowledge in the field of civil engineering satisfy the needs of the social partners and are in line with the intended learning outcomes. The issue raised by the previous Review Panel related to ‘insufficient knowledge in the field of building design, architecture and urban planning, heritage protection, construction technology/organisation etc.’ has been successfully addressed by ASU (by making improvements in curriculum and hiring qualified staff), and is no longer an issue in the current programme.

The Review Panel is satisfied that the programme and study subjects intended learning outcomes are fully compatible with each other, and the methods of delivery are chosen appropriately. Within the SER, an overview of the compatibility mapping of the intended learning outcomes with each study subject, together with a more detailed mapping to the method of delivery and

assessment of the intended learning outcomes are provided. Although clear enough, the latter merely reiterates the information available within individual study subject description. A more explicit way would be to provide a detailed compatibility mapping, with careful attention paid to the intended learning outcomes from the students' point of view rather than the delivery of intended learning outcomes. The Review Panel suggests the Study Programme Committee to investigate this formal suggestion.

The Review Panel also noted that in the description of the intended learning outcomes, research abilities are only emphasized and highlighted in basic/fundamental subjects, such as Mathematics, Physics, Chemistry, Hydraulics and Materials, whereas they are addressed in other learning activities (like the final thesis). The Review Panel would like to suggest the Study Programme Committee further to improve the intended learning outcomes by incorporating research skills in other subjects as well. Measures to further improve the competences related to research, independent thinking and to enhance transferable skills like management, presentation and report writing could also be considered.

2. Curriculum design

The study programme requires the students to complete a requirement of 240 ECTS, with a combination of general university subjects (18 ECTS), subjects in main study field and related subjects (181 ECTS), free electives (12 ECTS) and specialist subjects (29 ECTS). This is in compliance with the regulations of the Ministry for Education and Science's – General Requirements of the First Degree and Integrated Study Programmes.

The scope of the programme is extensively, as an undergraduate programme, covering all the essential subjects one would expect to find in a Hydraulic Engineering/Civil Engineering programme with a special orientation to Hydraulics/Water Engineering. The curriculum design starts with broad based subjects, such as Chemistry, Physics and Mathematics, progressing to more focussed subjects, such as Materials, Mechanics, Geodesy, Informatics and Soil Science, before embarking on specialist subjects, such as Geotechnics, Hydraulics, Hydrology and Hydrogeology. The programme also covers themes, such as Health and Safety, Law and Water Economics. Thus, the combined content is sufficient to cover the aims and intended learning outcomes of the programme.

The Review Panel confirms that the programme is satisfying the legal requirement with a slight exception regarding the internships which must account for at least 15 ECTS (the provision of the Minister for Education and Science Order "General Requirements for First Degree and

Integrated Study Programmes“: “10. Internship shall be considered one of the seven separate study subjects if it is not associated with any of the subjects studied, or, in case it is associated with one of the subjects, the programme providers have reason to consider it separable from the subject studied. In case practise is constituent part of the subject, it should not be included in the list of the subjects studied”). The practice component in Geodesy (3 ECTS) is part of that subject and Training Practice in Hydrometry and Hydrogeology (6 ECTS) is, as the name suggest, a training practice and both of them should not be counted as internships. Henceforth, 9 ECTS from Geodesy and Hydrometry and Hydrogeology are deemed inappropriate to be considered as an internship. Measures ought to be taken to rectify this and ensure the compliance with the length and credits for internships.

There is a logical progression of study subjects taught from term 1 to 8, and the theme of hydraulic engineering is very much embedded within the study subjects. Each of the study subjects tends to indicate the links to other subjects via the prerequisites in the study description. Students are being offered two elective tracks in the 5-8, thereby allowing more options for differentiated study specialisation. However, the Review Panel found that all the students chose from one elective track only (Hydraulic Civil Engineering), and this is not ideal since there is a need for students trained in design as well. The Review Panel suggests the Study Programme Committee to investigate this and propose solutions to provide real options for students.

The Review Panel noted a small number of students in the cohort, and that this number remains relatively small over the past 4 years of intake (around 20). The Review Panel also noted from the discussion with the Vice-dean of Studies that two new study programmes have been proposed for 2014/15. Considering the major issue of small number of students, the Review Panel recommends to the Faculty clearly analyse the needs before creating new closely related study programmes. The current programme could be improved to attract students by offering clear distinctive study tracks. This is very much in line with the suggestion to provide real options for the students.

The SER indicates and it was approved during the meetings that the study programme is frequently updated and revised, and that the students have a chance to associate their learning and even work with private enterprises, regulatory institutions, municipal authorities and consulting engineers. This ensures that the study programme is up-to-date with the latest developments in the profession and is informed by the latest research. The Review Panel is pleased to note that the study programme has implemented an internal review system (consisting

of 2 reviewers per study subject/course), and would suggest that this practice be communicated to other study programmes, as a good practice.

3. Staff

In 2012-2013, 47 teachers participated in the implementation of the programme: 2 professors, 21 associate professors, 5 lecturers with a doctorate, 14 lecturers without a doctorate and 5 assistants (all holding Master degree). They devote from 8.0% to 18.0% of their time to teach in this programme. The average for all teachers is 14.0%, which is reasonable. Thus, the full-time equivalent (FTE) staff involved in this programme alone is 6.58, for approximately 100 students. The ratio student-to-teacher was 15.2:1 on average in 2012-2013. This is judged to be satisfactory (the legal requirement is a maximum of 20:1).

The number of students per group is:

- practicums, seminars and laboratory work: 7 to 22 (7 to 11 in sub-groups); usually 1 teacher has 1 sub-group;
- training practices: 5-6; teachers work with a maximum of 3 groups.

These figures show that, for these teaching activities, the number of teachers is sufficient to ensure a good quality teaching.

The turnover of teachers is very low: during the 2008-2013 period, only 10 teachers left the programme (according to the SER, 7 of them retired, because of their age). 2 young PhD lecturers joined recently the programme. There are 10 teachers above the age of 60. Note that the mean age of the 47 teachers was 49,5 years in 2012-2013. It is prudent to consider future staffing needs at this stage.

The legal requirement is that more than 50% of the volume of study field subjects must be taught by 'scientists'. In the present programme, 28 teachers out of 47 hold a doctorate and teach 54.8% of the study field subjects.

The teachers' positions are for 5 years and they must be certified. For obtaining the certification, their research (including participation in scientific conferences and writing papers), their pedagogical methods, their self-continuous training and their organisation skills are evaluated. According to the SER, currently all the teachers are certified, meaning that they meet the qualification requirements.

The expertise and link to practice of the teaching staff is shown by their participation in continuing education or qualification courses in Lithuania and by their participation in the preparation of technical regulations.

The teachers are encouraged to upgrade their professional competences and skills through various financial measures. During the past 5 years, 15 teachers of the programme benefited from internships of 1 to 5 days in foreign universities, 9 participated in courses and seminars, 4 participated in 15-day courses for management or communication improvement. Nevertheless, it is to be noted that, due to the lack of funds, there were no long-term internships in foreign universities during 5 last years.

The SER mentions that the teaching staff devotes around 35% of its workload to research ('Scientific activity'), which in Review Panel's point of view is reasonable.

The teachers of the programme have been involved in international research programmes of the European Union, such as TNSHP (FP 5), SHAPES (FP6), SHERPA, RESTOR HYDRO, COST, and EU AGRI MAPPING. Altogether, the Review Panel judges that the involvement in research of the teaching staff is good. Nevertheless, during the 5 last years (2008-2013) there were only delivered 17 visits lectures in foreign universities under the Erasmus programme (and 12 teachers from foreign universities taught lectures linked to the programme).

The mobility of the teaching staff (47 members) thus appears to be quite low, and the link with the European research community in the field should certainly be improved. No mention of training in foreign languages for the teaching staff is made in the SER neither during the visit. This would be useful both for their mobility and for the courses they deliver in English or in Russian.

4. Facilities and learning resources

The premises for studies are adequate both in their size and quality. The lectures take place in large classrooms (respectively 123 and 154 seats) or in smaller auditoriums (5 with 30-63 seats). All equipped with multimedia facilities. The modernization and reconstruction of block C in Building 3 started in February 2012 and block A in December 2012. The facilities are adequate to the needs of people with physical disabilities. However, the reconstruction works of other buildings delay and are not completed as it was planned.

The teaching and learning equipment (laboratory and computer equipment, consumables) are adequate both in their size and quality. The Review Panel visited laboratories of: Hydrogeology,

Water Supply, Hydraulics, Hydraulic Structures, Land Drainage, Geodesy, Building Materials, and Modelling. All the laboratories serve for research and training purposes. The laboratories are provided with old manually operated and also with very new and modern apparatus. 1.5 million Litas was spent to buy new instruments. However, at the time of the Review Panel visit, some new equipment was not yet unpacked and others were not in working conditions. The Review Panel also noted the lack of hands-on sessions for the students, too often limited to observing the experiment. It was noted that equipment for laboratory works in geotechnics was very basic and that there is a need to vary and improve this equipment in order to better train the students on this subject.

Considering the computer facilities, there is a general impression that the level is adequate. On top of the 3 central computer classrooms, there are 3 special classrooms of Faculty and specialized GIS training room. Available software includes ArcGIS 10.1, latest version of AutoCad, Civil3D, GeoMap, cost estimating software SES2004, and SMADA software for hydraulic calculations. Students have a wireless access to Internet. The number of licences for special software is still low, because of the high prices. In the case of need, the students cooperate with the teachers to use special software licences.

The Review Panel also visited a very unique training field on complex hydro-systems located on the River Graužė. In the training field 5 dams and 20 other hydraulic structures were constructed in 1 square kilometre area. The training field is used for teaching purposes. However, the Review Panel observed that many of hydraulic structures were not in working conditions. The main reason of that is a shortage of financing to keep proper level of maintenance. It is highly recommended to maintain this exceptional training site in working conditions.

The same training field is used for practice component in Geodesy. The training practice components in Hydrometry and Hydrogeology are organized on the Dubysa River. The design offices or construction enterprises welcome students for professional activity practice (internships). Visits to drilling sites, water measurement and meteorological stations, river ports, inland waterways, dredging sites, are also organized to deepen student practical experience. As a whole, the training possibilities in the field are very good.

Teaching material (textbooks, books, periodical publications, databases) is adequate and accessible. The university library and reading rooms are located in Building 3. University library reading room services provide 215 workplaces for readers. Library funds contain 515 671 copies of 157 217 titles of the printed material (22% related to studies). There is an electronic access to the catalogue. All ASU residences are connected to LITNET network. Students and teachers

have access to textbooks, periodical publications, journals, regulatory documents, dissertations, diploma papers, Master thesis databases and other resource materials. According to project VPI-2.2-ŠMM-07-K-02 Improvement of Study Quality, 39 student books in foreign language were acquired. The Review Panel noted that at the moment of the visit, the library was in the situation of widening/expansion, transition of books to new buildings and shelves. Therefore, there was very difficult to assess the availability of references in foreign languages (English). When examining the plan for renovation, the Review Panel was surprised to discover a plan which does not reflect the current international standards for libraries which are now organized more as learning centres, giving fewer places to usual book shelves.

During the meeting with the students, the Review Panel noted that they approved that the living conditions in the university dormitories were good, but that the prices for accommodation are very high in comparison with their earnings. ASU is invited to examine this issue carefully in order to put the student in the best study conditions.

5. Study process and student assessment

The admission requirements are well-founded and rational, including final grades from secondary school in Mathematics, Chemistry or Physics, Lithuanian and foreign languages and are in accordance with LAMA BPO set rules.

The organisation of the study process ensures an adequate provision of the programme and the achievement of the intended learning outcomes. During the meeting 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 (during sessions in laboratories, seminars or individual projects). However, a 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 positively acknowledges the existing Erasmus agreements. The number of students benefiting from this programme remains however low, only 3 students went for studies abroad during evaluation period. The Study Programme Committee should examine carefully how to improve the situation, in particular with regard to the credit transfer system. Student mobility coordinators should help to create learning agreements of 30 ECTS (1 semester) or 60 ECTS (2 semesters) abroad and automatically validated in ASU.

The higher education institution ensures an adequate level of academic and social support. The students can receive psychological, sports, health and cultural support. The supervisors of academic groups and staff members of the Dean's Office help the students solving their emerging problems. The academic tutor system needs however to be further improved by organizing regular meetings with the students and clear dedicated consultation schedules.

The Review Panel emphasises that the students do not know or do not feel support of Faculty students representative body. It is recommended that the Faculty should better inform and advertise the role of the student representative, with a clear and transparent choice procedure.

The Review Panel appreciated the efforts to attract international students with programmes in English or Russian. However it is recommended to further improve the services to these students: international office (including support for visa and other administrative issues), welcome and social activities, academic tutor, buddy, etc.

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 Bachelor thesis (by drafting a student guide clearly defining the learning objectives, content and assessment, including the grading system). The procedures for the final thesis preparation and 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

Coordination and monitoring of improvement of study programme is carried out by the Study Programme Committee. The Committee consists of at least 7 persons from which 5 must be scientists of the study field(s) or area, one employers' representative and one representative delegated by the Faculty students' representation.

The Review Panel has noticed good informal involvement of the students and social partners in programme management, but recommends formalizing such participation by planning explicit meeting with a formal invitation to participate. Agendas and meeting minutes are additional tools to be implemented in order to make the programme management transparent.

Considering the major issue of decreasing number of students, the Review Panel recommends to the Faculty to clearly analyse the needs before creating new closely related study programmes, like in water resources, for instance. The programme could be improved to attract students by offering clear distinctive study tracks.

A study information system has been implemented. It should be further developed to integrate data from other departments of the university (human resources, research…). A recent tool to survey students and alumni has been developed but is not yet very popular.

The procedure of the internal study quality assurance is defined in the university internal study quality assurance system. Procedures are clearly described in the SER, but require further simplification to better focus on the feedback and on the implementation of the improvements.

To ensure the study quality, an assessment of the programme aims and intended learning outcomes is conducted on a yearly basis. The assessment is intended to get feedback on the quality of teaching and the viability of the programme from the students, teachers and employers. Tools for this surveying have been developed, but here again, a better attention should be paid to give feedback information to the stakeholders who have contributed to the surveys. It is very important to inform the stakeholders about the consequences of their suggestions.

When visiting the laboratories, the Review Panel has been confronted to a very expert staff in terms of scientific aspects, but underestimate mostly the health and safety regulations. It is then recommended to urgently train the staff to these issues in order to improve the health and safety conditions in laboratories or field site.

III. RECOMMENDATIONS

1. Considering the major issue of decreasing number of students, the Review Panel recommends to the Faculty to clearly analyse the needs before creating new closely related study programmes. This programme could be improved to attract students by offering clear distinctive study tracks.
2. The Review Panel confirms that the programme is satisfying the legal requirements with a slight exception regarding the internships which must account for at least of 15 ECTS. The practice components in Geodesy (3 ECTS) and in Hydrometry and Hydrogeology (6 ECTS) are part of the related subjects and should not be counted as internships.
3. Regarding the students mobility opportunities, the Review Panel positively acknowledges the existing Erasmus agreements. The number of students benefiting from this programme remains however low and the Study Programme Committee should examine carefully how to improve the situation, in particular with regard to the credit transfer system.
4. The amount of international staff mobility is low. Therefore, supportive and encouraging mechanisms should be developed to better integrate exchange programmes, such as Erasmus+ and others.
5. More transparent and consistent learning assessment and grading schemes should be adopted for coursework, internships and final thesis.
6. ASU owns excellent laboratory facilities, as well as a field site. It is recommended to keep them in working conditions and improve student hands-on sessions. It is also recommended to have more varied geotechnical equipment.
7. The Review Panel has noticed good informal involvement of the students and social partners in programme management, but recommends formalizing such participation.
8. The Review Panel appreciated the efforts to attract international students with programmes in English or Russian. It is recommended to further improve the services to these students: international office (including support for visa and other administrative issues), welcome and social activities, academic tutor, buddy, etc.
9. It is recommended to offer the staff training to improve their foreign language skills.
10. The health and safety conditions in laboratories or field site should be improved.

IV. SUMMARY

This four year full-time (6 years part-time) programme leading to a Bachelor of Water Engineering qualification (***Hidrotechninės statybos inžinerija***) has clear and well defined aims and intended learning outcomes fitting with the professional and academic requirements. There is clear evidence that the name of the programme, the intended learning outcomes, content and qualification offered are compatible with each other. The curriculum design is extensively, as an undergraduate programme, covering all the essential subjects one would expect to find in a Hydraulic Engineering/Civil Engineering programme with a special orientation to Hydraulics/Water Engineering. The Review Panel confirms that the programme is satisfying the legal requirement with a slight exception regarding the internships which must account for at least 15 ECTS. There is a logical progression of study subjects taught from term 1 to 8, and the theme of hydraulic engineering is very much embedded within the study subjects. The teaching staff is sufficient and well qualified to deliver the programme. Their involvement in research is good. The facilities are good for all aspects: classrooms, laboratories, computers, library and dormitories. The study process and student assessment are adequate. The programme management and quality assurance are appropriate.

The Review Panel has however noticed some areas of possible further improvement. Considering that the students all chose the same elective track and the low number of students, the Review Panel strongly recommends to the Faculty clearly analyse the needs before creating new closely related study programmes and to rather envisage improving and diversifying this programme instead. Regarding the intended learning outcomes and curriculum design, a better attention should however be paid to the further development of research abilities. The internationalization, both for students and staff, needs to be further improved, better supported and encouraged. The learning assessment and grading schemes should be adopted for coursework, internships and final thesis and could be more transparent. ASU owns excellent laboratory facilities, as well as a field site, it is recommended to keep them in working conditions and improve student hands-on sessions. The laboratories on geotechnical aspects should be further developed. The new library should follow the international standards and move towards a learning centre. The involvement of the stakeholders in programme management is to be better formalized. The services to welcome international students together with the staff language skills require further development. The health and safety conditions in laboratories or field work should be improved.

V. GENERAL ASSESSMENT

The study programme *Hydraulic Engineering* (state code – 612H23002) at Aleksandras Stulginskis 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	4
2.	Curriculum design	3
3.	Staff	3
4.	Material resources	3
5.	Study process and assessment (student admission, study process student support, achievement assessment)	3
6.	Programme management (programme administration, internal quality assurance)	3
	Total:	**19**

*1 (unsatisfactory) - there are essential shortcomings that must be eliminated;

2 (satisfactory) - meets the established minimum requirements, needs improvement;

3 (good) - the field develops systematically, has distinctive features;

4 (very good) - the field is exceptionally good.

Grupės vadovas: Team leader:	Prof. Philippe Bouillard
Grupės nariai: Team members:	Prof. Roger Frank
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ALEKSANDRO STULGINSKIO UNIVERSITETO PIRMOSIOS PAKOPOS STUDIJŲ PROGRAMOS *HIDROTECHNINĖS STATYBOS INŽINERIJA* (VALSTYBINIS KODAS – 612H23002) 2014-06-18 EKSPERTINIO VERTINIMO IŠVADŲ NR. SV4-352 IŠRAŠAS

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V. APIBENDRINAMASIS ĮVERTINIMAS

Aleksandro Stulginskio universiteto studijų programa *Hidrotechninės statybos inžinerija* (valstybinis kodas – 612H23002) vertinama **teigiamai**.

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

* 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 ketverių metų trukmės nuolatinių (6 metų ištęstinių) studijų programos *Hidrotechninės statybos inžinerija*, suteikiančios Vandens inžinerijos bakalauro kvalifikacinį laipsnį, tikslai ir numatomi studijų rezultatai yra aiškūs, gerai apibrėžti ir pagrįsti profesiniais bei akademiniais poreikiais. Akivaizdu, kad programos pavadinimas, numatomi studijų rezultatai, programos turinys ir suteikiama kvalifikacija dera tarpusavyje. Programos sandara, kaip neretai ir yra būdinga pirmosios pakopos studijų programoms, apima visus pagrindinius dalykus, kurie yra būtini studijuojant *Hidrotechninės statybos inžinerijos / Statybos inžinerijos* studijų programą su specialia orientacija į *hidrauliką / vandens inžineriją.* Ekspertų grupės vertinimu, studijų programa yra sudaryta atsižvelgiant į teisės aktų nuostatas, išskyrus nedidelę išimtį, susijusią su dviem praktikomis, kurios turi sudaryti ne mažiau kaip 15 ECTS. 1–8 studijų semestruose dėstomi studijų dalykai yra išdėstyti nuosekliai, o hidrotechninės statybos inžinerijos aspektas atsispindi daugelyje studijų dalykų. Dėstytojų skaičius ir kvalifikacija yra pakankami studijų programos vykdymui. Programos akademinis personalas aktyviai dalyvauja mokslo tiriamojoje

veikloje. Materialieji ištekliai, t. y. auditorijos, laboratorijos, bibliotekos, skaityklos ir kompiuterinė įranga, yra geros kokybės. Studijų eiga ir jos vertinimas organizuojami tinkamai. Programos vadyba, įskaitant ir vidinę studijų kokybės užtikrinimo sistemą, veikia efektyviai.

Vis dėlto ekspertų grupė identifikavo ir tobulintinas studijų programos sritis. Atsižvelgdama į tai, kad visi studentai pasirinko tuos pačius pasirenkamuosius studijų dalykus (*elective track*) ir kad studentų skaičius yra nedidelis, ekspertų grupė rekomenduoja fakultetui prieš rengiant naujas labai panašaus pobūdžio studijų programas išanalizuoti rinkos poreikius ir, užuot jas kūrus, verčiau apsvarstyti, kaip tobulinti šią programą siekiant jos išskirtinumo. Kalbant apie numatomus studijų rezultatus ir programos sandarą, reikėtų daugiau dėmesio skirti studentų mokslinių tyrimų vykdymo įgūdžių ugdymui. Būtina toliau skatinti ir remti studentų bei dėstytojų dalyvavimą tarptautinėje veikloje. Kursinių darbų, praktikų bei baigiamųjų darbų vertinimo sistema galėtų ir turėtų būti aiškesnė. Aleksandro Stulginskio universitetas turi puikias laboratorijas ir praktinio mokymo lauko bazę; rekomenduojama imtis visų reikiamų priemonių jų veikimo užtikrinimui, taip pat labiau jomis naudotis studentams atliekant praktines užduotis. Taipogi rekomenduojama tobulinti geotechnikai skirtą laboratorinę įrangą. Naujoji biblioteka turėtų atitikti tarptautinius standartus ir tapti studijų centru. Socialinių dalininkų įtraukimas į studijų programos vadybą turėtų būti formalesnis. Reikėtų toliau tobulinti paslaugų sistemą, skirtą tarptautiniams studentams, kartu tobulinant dėstytojų užsienio kalbų įgūdžius. Sveikatos ir saugos sąlygos laboratorijose ir praktinio mokymo lauko bazėje turėtų būti gerinamos.

III. REKOMENDACIJOS

1. Atsižvelgdama į svarbiausią problemą, t. y. mažėjantį studentų skaičių, ekspertų grupė rekomenduoja fakultetui išanalizuoti rinkos poreikius prieš rengiant naujas labai panašias studijų programas. Norint pritraukti daugiau studentų į šią studijų programą, reikėtų apsibrėžti ir aiškiai pateikti išskirtines studijų programos ypatybes.
2. 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. Geodezijos praktika (3 ECTS) ir Hidrometrijos ir hidrogeologijos praktika (6 ECTS) yra minėtųjų studijų dalykų sudedamosios dalys ir neturėtų būti priskiriamos prie atskirų praktikų.
3. Kalbant apie studentų judumo galimybes, ekspertų grupė teigiamai vertina egzistuojančias Erasmus sutartis. Vis dėlto šiose programose dalyvaujančių studentų skaičius išlieka nedideliu, todėl Studijų programos komitetas turėtų atidžiai

išanalizuoti susidariusios situacijos gerinimo galimybes, ypatingas dėmesys šiuo atveju turėtų būti skiriamas kreditų įskaitymo sistemai.

4. Dėstytojų tarptautinio judumo rodikliai yra žemi. Atitinkamai reikėtų daugiau dėmesio skirti paramos ir skatinimo priemonėms, kurios užtikrintų personalo dalyvavimą *Erasmus+* ir kitose mainų programose.
5. Kursinių darbų, praktikos ir bakalauro baigiamųjų darbų vertinimo sistema turėtų būti aiškesnė.
6. Aleksandro Stulginskio universitetas turi puikiai įrengtas laboratorijas, taip pat ir praktinio mokymo lauko bazę (*field site*). Rekomenduojama imtis visų reikiamų priemonių jų veikimo užtikrinimui, taip pat labiau jomis naudotis studentams atliekant praktines užduotis. Taipogi rekomenduojama įsigyti įvairesnės geotechninės įrangos.
7. Ekspertų grupė pastebėjo, kad neformaliai studentai ir socialiniai partneriai yra įtraukiami į studijų programos vadybos procesą, tačiau jų dalyvavimas turėtų būti formalizuojamas.
8. Ekspertų grupė teigiamai vertina aukštosios mokyklos pastangas pritraukti į šią studijų programą studentų iš užsienio (studijos vykdomos anglų ir rusų kalbomis). Rekomenduojama toliau tobulinti paslaugų užsienio studentams teikimo sistemą: tarptautinio skyriaus veiklą (įskaitant pagalbą vizų ir kitais administraciniais klausimais), socialinės bei akademinės paramos teikimą.
9. Rekomenduojama organizuoti personalo mokymą, siekiant tobulinti jų užsienio kalbų įgūdžius.
10. Reikėtų gerinti sveikatos ir saugos sąlygas laboratorijose ir praktinio mokymo lauko bazėje.

<…>

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

[1] Žin., 2002, Nr.37-1341.