STUDIJŲ KOKYBĖS VERTINIMO CENTRAS
CENTRE FOR QUALITY ASSESSMENT IN HIGHER EDUCATION

CIVIL ENGINEERING FIELD OF STUDY

AT VYTAUTAS MAGNUS UNIVERSITY

EXTERNAL EVALUATION REPORT

Expert panel:

1. Panel chair: Dr. Maria Kyne
2. Academic member: Prof. dr. Alfred Strauss
3. Academic member: Prof. dr. Silke Ursula Wieprecht
4. Student representative: Mr Vėjas Strelčiūnas

SKVC coordinator: Dr. Ona Šakalienė

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I. INTRODUCTION

1.1. OUTLINE OF THE EVALUATION PROCESS

The field of study evaluations in Lithuanian higher education institutions (HEIs) are based on the following:

- Procedure for the External Evaluation and Accreditation of Studies, Evaluation Areas and Indicators, approved by the Minister of Education, Science, and Sport;
- Methodology of External Evaluation of Study Fields approved by the Director of the Centre for Quality Assessment in Higher Education (SKVC);
- Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG).

The evaluation is intended to support HEIs in continuous enhancement of their study process and to inform the public about the quality of programmes within the field of study.

The object of the evaluation is all programmes within a specific field of study. A separate assessment is given for each study cycle.

The evaluation process consists of the following main steps: 1) Self-evaluation and production of a self-evaluation report (SER) prepared by an HEI; 2) A site visit by the review panel to the HEI; 3) The external evaluation report (EER) production by the review panel; 4) EER review by the HEI; 5) EER review by the Study Evaluation Committee; 6) Accreditation decision taken by SKVC; 7) Appeal procedure (if initiated by the HEI); 8) Follow-up activities, which include the production of a Progress Report on Recommendations Implementation by the HEI.

The main outcome of the evaluation process is the EER prepared by the review panel. The HEI is forwarded the draft EER for feedback on any factual mistakes. The draft report is then subject to approval by the external Study Evaluation Committee, operating under SKVC. Once approved, the EER serves as the basis for an accreditation decision. If an HEI disagrees with the outcome of the evaluation, it can file an appeal.On the basis of the approved EER, SKVC takes one of the following accreditation decisions:

- **Accreditation granted for 7 years** if all evaluation areas are evaluated as exceptional (5 points), very good (4 points), or good (3 points).
- **Accreditation granted for 3 years** if at least one evaluation area is evaluated as satisfactory (2 points).
- **Not accredited** if at least one evaluation area is evaluated as unsatisfactory (1 point).

If the field of study and cycle were **previously accredited for 3 years**, the re-evaluation of the field of study and cycle is initiated no earlier than after 2 years. After the re-evaluation of the field of study and cycle, SKVC takes one of the following decisions regarding the accreditation of the field of study and cycle:

- To be accredited for the remaining term until the next evaluation of the field of study and cycle, but no longer than 4 years, if all evaluation areas are evaluated as exceptional (5 points), very good (4 points) or good (3 points).
- To not be accredited, if at least one evaluation area is evaluated as satisfactory (2 points) or unsatisfactory (1 point).

1.2. REVIEW PANEL

The review panel was appointed in accordance with the Reviewer Selection Procedure as approved by the Director of SKVC.

The composition of the review panel was as follows:

1. Panel chair: Dr. Maria Kyne, Dean of the Faculty of Engineering and Technology at Technological University of the Shannon (Ireland);
2. Academic member: Prof. dr. Alfred Strauss, Head of Institute of Structural Engineering at BOKU university (Austria);
3. Academic member: Prof. dr. Silke Ursula Wieprecht, Professor at Department of Hydraulic Engineering and Water Resources Management Institute for Modelling Hydraulic and Environmental Systems at University of Stuttgart (Germany);
4. Student representative: Mr Vėjas Strelčiūnas, Fourth year student of the of the first-cycle bioengineering study program at Vilnius Gediminas technical university (Lithuania).

The site visit was organised on 27 February 2025 onsite.

Meetings with the following members of the staff and stakeholders took place during the site visit:

- Senior management and administrative staff of the faculty(ies);
- Team responsible for preparation of the SER;
- Teaching staff;
- Students;
- Alumni and social stakeholders including employers.

There was no need for translation and the meetings were conducted in English.

1.4. BACKGROUND OF THE REVIEW

Overview of the HEI

Vytautas Magnus University (hereafter – VMU) was established in 1922 and re-established in 1989. The university offers degree studies of all three cycles in humanities, social sciences and arts, environmental sciences and biotechnologies. As stated in the Self-evaluation Report (hereafter – SER), VMU is an international and multilingual institution that continuously develops international networks and intercultural dialogues, participates in international, scientific, academic and social projects and encourages teacher and student mobility.

The university is governed by the Rector, the Rectors Advisory Council, the university Council and the Senate. There are nine faculties, three academies, an institute of foreign languages and a botanical garden. In 2018 the Alexandras Stulginskis University merged with VMU and by 2019, the merged university became the VMU Agricultural Academy. The Faculty of Engineering of the VMU Agricultural Academy offers the second cycle programme in Hydraulic Engineering.

The Faculty of Engineering of the VMU Agricultural Academy was originally established in 1946 and in the same year offered a study programme that trained graduate hydraulic engineers. There are four departments in the Faculty of Engineering (Water Engineering, Mechanics, Energy and Biotechnology Engineering, Land Management and Geomatics, Agricultural Engineering and Safety). The implementation of the Hydraulic Engineering programme is the responsibility of the Study Programme Committee who report to the Head of Department and the Dean. According to the SER, the research areas in the faculty related to the civil engineering study field are green construction, sustainable engineering systems, climate change migration, biomass engineering and renewable energy sources and smart land and water engineering. Laboratories supporting this programme are housed in the Science, Studies and Business Centre.

The second cycle Hydraulic Engineering programme was externally evaluated in 2021 by an international team of experts who made 12 recommendations and suggested improving the management of the programme.

As stated in the SER, the Hydraulic Engineering programme is the only second cycle programme in the field of civil engineering that prepares the Master of Civil Engineering graduates for the development of rural water management.

Documents and information used in the review

The following documents and/or information have been requested/provided by the HEI before or during the site visit:

- *Self-evaluation report and its annexes;*
- *VMU civil engineering student numbers and progress;*
- *VMU civil engineering programme improvement plan 2024-2025;*
- *List of participants VMU civil engineering.*

II. STUDY PROGRAMMES IN THE FIELD

First cycle/LTQF 7

Title of the study programme	**Hydraulic Engineering**
State code	6211EX027
Type of study (college/university)	University
Mode of study (full time/part time) and nominal duration (in years)	Part-time (3 years)
Workload in ECTS	120
Award (degree and/or professional qualification)	Master in engineering sciences
Language of instruction	Lithuania
Admission requirements	Bachelor degree
First registration date	1992
Comments (including remarks on joint or interdisciplinary nature of the programme, mode of provision)	

III. ASSESSMENT IN POINTS BY CYCLE AND EVALUATION AREAS

The **second cycle** of the *civil engineering* field of study is given a **positive** evaluation.

No.	Evaluation Area	Evaluation points*
1.	Study aims, learning outcomes and curriculum	3
2.	Links between scientific (or artistic) research and higher education	4
3.	Student admission and support	4
4.	Teaching and learning, student assessment, and graduate employment	3
5.	Teaching staff	4
6.	Learning facilities and resources	3
7.	Quality assurance and public information	3
	Total:	24

IV. STUDY FIELD ANALYSIS

AREA 1: STUDY AIMS, LEARNING OUTCOMES AND CURRICULUM

1.1.	Programmes are aligned with the country's economic and societal needs and the strategy of the HEI

FACTUAL SITUATION

1.1.1. Programme aims and learning outcomes are aligned with the needs of the society and/or the labour market

The 120 ECTS (credits) second cycle hydraulic engineering programme offers the degree of Master of Engineering Sciences. As per the SER, the aim of the programme is to prepare highly qualified engineering specialists capable of conducting scientific or applied research in water engineering, evaluating hydraulic structures and their impact on the environment using advanced scientific methods and the latest information technologies and integrating knowledge from different fields to solve theoretical and practical problems of water management.

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1 (unsatisfactory) - the area does not meet the minimum requirements, there are substantial shortcomings that hinder the implementation of the programmes in the field.
2 (satisfactory) - the area meets the minimum requirements, but there are substantial shortcomings that need to be eliminated.
3 (good) - the area is being developed systematically, without any substantial shortcomings.
4 (very good) - the area is evaluated very well in the national context and internationally, without any shortcomings.
5 (exceptional) - the area is evaluated exceptionally well in the national context and internationally.

Graduate competencies from this programme include competencies primarily found in the fields of civil engineering, environmental engineering and agricultural sciences which are closely related to water engineering. Hydraulic engineering studies internationally have an interdisciplinary (civil engineering, environmental) study tradition. The majority of the non-civil engineering field subjects are offered as electives so this contribution is limited.

VMU emphasises that there is no similar programme in other universities in Lithuania. The need for hydraulic engineering specialists globally has increased due to large-scale water resource management problems and this is likely to grow with the effects of climate change. There are circa 120 hydraulic engineering and 70 drinking water companies in Lithuania who employ hydraulic engineers. It has been estimated that Lithuania needs to produce circa 26 Bachelor and 10 Masters specialists in hydraulic engineering annually to cater for the industry need. Graduates of the programme are also recruited into construction and civil engineering organisations.

1.1.2. Programme aims and learning outcomes are aligned with the HEI's mission, goals, and strategy

The VMU Strategic Plan 2021-2027 is based on five groups of objectives. The hydraulic engineering programme is broadly aligned to Strategic Objective five which is *university impact on societal development* and the mission and vision of the VMU Agricultural Academy.

The aim and learning outcomes of the Hydraulic Engineering programme are compatible with the VMU mission and vision to *apply the knowledge of engineering and other sciences to sustainable development*, as well as providing the population with quality food and a quality living environment. The programme provides graduates who can disseminate the most advanced knowledge and experience in sustainable use and development of water resources and who have the capabilities outlined in the VMU Agricultural Academy strategic directions.

ANALYSIS AND CONCLUSION (regarding 1.1.)

The expert panel conclude that the needs of society for graduates in the civil engineering study field of hydraulic engineering are well reflected in the programme and based on engagement and interactions with relevant social partners and stakeholders. The Alumni Club has the potential to be very effective for this programme. The site visit confirmed that there is a strong need for additional graduates from this programme as the students are all working full-time as well as attending this part-time programme.

The majority of non-civil engineering field subjects are offered as electives so the inclusion of environmental engineering and agricultural engineering in the programme is less obvious to the expert panel.

The expert panel analysis of the SER and related documents show that the hydraulic engineering programme outcomes are defined to comply with the mission, aims, goals and strategy of VMU.

1.2.	Programmes comply with legal requirements, while curriculum design, curriculum, teaching/learning and assessment methods enable students to achieve study aims and learning outcomes

FACTUAL SITUATION

1.2.1. Programmes comply with legal requirements

Table 1.1 of the SER displays the hydraulic engineering programme's compliance with legal requirements. This second level programme has 120 ECTS credits (1 ECTS credit corresponds to 26.67 hours of student work time). The VMU *General Requirements and Descriptor of the Study Field* sets out the legal requirement for the structure of programmes. The study field compulsory subjects should be at least 60 credits and, in this programme, it is between 96 and 108 credits. Subjects from other study fields specified by the university or optional studies should be 30 credits or less and, in this programme, it is between 12 and 24 credits. Thirty credits are specified for the final thesis and this is in agreement with the legal acts. The minimum credit volume per subject is 6 credits. The contact hours and individual independent learning exceeds the minimum values set out in the legal documentation.

According to the SER, the programme complies with the VMU *Descriptor of Study Cycles*, the VMU *Descriptor of Study Field* and the competence requirements for a civil engineer provided in the professional standard of the construction sector.

1.2.2. Programme aims, learning outcomes, teaching/learning and assessment methods are aligned

The learning outcomes of individual subjects are formulated in accordance with the overall study programme aims. The compulsory subjects have been selected to reflect the aims of the programme at second cycle level. Table 1.2 of the SER shows the coherence between the programme aim, the subject learning outcomes and the subject selection. Forty-two ECTS credits are allocated for independent research work and there is no practice/internship allocated in the structure of the programme (although included as part of individual subjects). Environmental engineering subjects are mainly provided as elective options with the provision of agricultural science subjects being less obvious.

The programme teachers prepare subject descriptions which outline the syllabi, teaching methods used and assessment methodologies. Subject descriptions are reviewed by the Study Programme Committee. Subject modifications can be made at any time, if necessary. The programme evaluation methods follow the VMU *Regulatory Regulation* recommendations and includes individual and group work, practice work, coursework, laboratory work and final exams. There is coherence between the field study programme learning outcomes with the learning outcomes of the subjects, study methods and assessment methods as illustrated in Table 1.3 of the SER.

1.2.3. Curriculum ensures consistent development of student competences

The hydraulic engineering programme implementation plan is set out in Annex 1 of the SER showing subjects, credits, contact hours, independent study hours, assessment methods and teachers delivering the subjects. The programme is a 3-year part-time programme delivered over six semesters with all subjects (except the final thesis) allocated 6 ECTS credits. The first five semesters have 18 credits of learning with the final semester having 30 credits.

Subjects are mainly organised in logical succession from basic knowledge to subjects with more complex information, design and construction technologies. With the rapid changes to technology and the disruptive influence of AI (Artificial Intelligence), the programme has the opportunity of an annual review where changes can be made. Full subject descriptions can be found in the Moodle environment.

1.2.4. Opportunities for students to personalise curriculum according to their personal learning goals and intended learning outcomes are ensured

VMU provides students with the opportunity to study according to an individual study schedule in order to meet specific learning needs and this process is regulated by the *Description of Procedure for Submission of an Individual Study Schedule at VMU.*

In semester four, students of the Hydraulic Engineering programme can select one 6-credit subject from a list of eleven subjects (primarily in the civil engineering /environmental engineering fields). In semester 5 of the programme, students can select two 6-credit subjects from the same list of eleven subjects. The university requires that there are at least six students selecting the same subject before the subject is allowed to be delivered. As the number of students on the programme is small, this in reality limits the subjects available to the students for selection.

Additional subjects may be selected outside of the prescribed elective subjects in Annex 1 of the SER which will lead to certificates or micro credentials which may be credited to students as part of the programme. Students also have opportunities to take subjects in 30 foreign languages.

1.2.5. Final theses (applied projects) comply with the requirements for the field and cycle

The preparation and defence of the final theses is regulated by the *VMU Study Regulations and General Order on the Preparation and Defence of the Final Theses*. The Faculty of Engineering also prepares *Methodological Guidelines* which set the requirements for the preparation, defence and special evaluation criteria.

The final thesis topic selection and their compliance with the field studies are analysed by the staff in the Department of Water Engineering and are normally related to hydraulic engineering, land reclamation, port structures, water supply, sewage engineering works and material properties as outlined in Annex 2 of the SER. Social partners also provide suitable topics for theses. The topics of theses are relevant to the study field.

The timing of the theses defence, the requirements and respective procedures are clearly set. The compliance of the final theses with the requirements of the field and cycle is assessed by the Final Theses Evaluation Commission, reporting to the Faculty Council. A commission for the assessment of the theses consisting of three to five persons is formed of the study field experts and affirmed by the Dean of Faculty.

The final theses can be defended only in case of approbation of research results at a conference and publishing in a peer reviewed scientific publication. If a student fails, a new attempt is possible after at least six months from the first attempt has lapsed. Appeals for procedural violations are considered in accordance with the procedure set out in *VMU Study Regulations.*

ANALYSIS AND CONCLUSION (regarding 1.2.)

The expert panel agrees that the overall structure of the hydraulic engineering second cycle programme does formally comply with the legal requirements of university education. This has been clearly demonstrated in the SER documents and the expert panel discussions with the programme teams.

There is coherence between the programme aims, subject selection, assessment methods and subject learning outcomes. There is a high number of ECTS credits allocated to research subjects but research elements/projects within a subject could be enhanced. The strong emphasis on research subjects has limited the opportunity to include practice/internship in the structure of the programme (although included as part of individual modules).

The expert panel recognises the difficulty for students who are working full-time to complete this part-time study programme. The final semester is allocated 30 ECTS credits for the research thesis preparation. A 30 ECTS credit semester equates to full-time learning on a programme of study which is incompatible with a part-time study programme.

Students select the electives on as consensus basis but in reality, only a limited number of electives can be chosen because of the small number of students on the programme. Students need to be aware that the ECTS credits achieved when on Erasmus exchange programmes can be converted to credits on their hydraulic engineering programme. The expert panel recognises that the procedures and regulations for selecting, preparing and defending the final theses is adequate and compliant with cycle requirements. Students can select their theses topics based on their work experience provided it is within the civil engineering study field of hydraulic engineering.

AREA 1: CONCLUSIONS

AREA 1	Unsatisfactory - 1 Does not meet the requirements	Satisfactory - 2 Meets the requirements, but there are substantial shortcomings to be eliminated	Good - 3 Meets the requirements, but there are shortcomings to be eliminated	Very good - 4 Very well nationally and internationally without any shortcomings	Exceptional - 5 Exceptionally well nationally and internationally without any shortcomings
Second cycle			X		

COMMENDATIONS

1. This programme caters for the water engineering and land management labour market in Lithuania by providing a unique second cycle programme with the aims, goals and content aligned to the civil engineering study field but specialising in the hydraulic engineering area.

2. The overall structure of the programme complies with the legal requirements of second cycle university education and is aligned to the VMU strategic objectives.

3. There is positive cooperation with the social partners and stakeholders on the relevancy of programme competencies and on the topics of the final theses.

4. Topics of final theses are relevant to the study field and are individually chosen by each student. The content of the final theses, as well as the defence procedures, are fully compliant with field and cycle requirements.

RECOMMENDATIONS

To address shortcomings

1. Consider the credit structure in the sixth semester in terms of ECTS credits. The programme should support part-time learning across all semesters.

2. Make clearer how environmental engineering is included in the core subjects of the programme. Environmental engineering and agricultural science competencies may not be sufficiently represented in the study programme learning outcomes as students may not take these electives due to viability constraints.

For further improvement

1. Further consideration needs to be given to increasing the number of students attending and completing the programme to ensure that the demand for graduates in the hydraulic engineering specialism is met. Industry assistance is promoting careers for hydraulic engineering graduates could be helpful.

2. The strong emphasis on research limits the opportunities to provide more specialist and practical knowledge and internships.

3. The opportunities for students to personalise their studies needs to be increased and the work to study cycle needs to be made clearer to students.

4. Include more research elements/projects in the teaching subjects.

AREA 2: LINKS BETWEEN SCIENTIFIC (OR ARTISTIC) RESEARCH AND HIGHER EDUCATION

2.1.	Higher education integrates the latest developments in scientific (or artistic) research and technology and enables students to develop skills for scientific (or artistic) research

FACTUAL SITUATION

Vytautas Magnus University is actively involved in R&D activities with a focus on sustainable infrastructure and hydraulic engineering. The strategic plan aims to enhance research quality and visibility through publications in high-ranking journals.

2.1.1. Research within the field of study is at a sufficient level

R&D activities are recognised nationally and have limited international recognition. Research areas include properties of concrete for hydraulic structures, green concrete, and local building materials. The research aligns with the R&D priorities of the EU and Lithuania, focusing on sustainable, resilient, and inclusive infrastructures. Key research topics are physical and digital modelling of hydraulic processes, nanotechnologies in hydraulic engineering, durability studies, drainage and irrigation systems, water pollution reduction, and sustainable water management. The emphasis is on digitalisation, Building Information Modelling (BIM), and smart infrastructure systems.

Funding comes from both national and international institutions. Staff participate in international conferences and deliver presentations. Researchers maintain relationships with Lithuanian and international partners, focusing on research projects, joint publications, and the mobility of students and faculty.

The university strategic action plan emphasises the development of R&D activities and the publication of research results in high-ranking scientific journals with a high citation index.

2.1.2. Curriculum is linked to the latest developments in science, art, and technology

Teachers incorporate scientific innovations into their courses, focusing on areas such as nano and smart technologies, digital and sustainable construction, modelling of hydrological and hydraulic processes, improving drainage and irrigation methods, sustainable hydropower, flood risk management, and climate change. Students are introduced to these innovations while preparing

their theses. Current focal points include smart technologies, the European Green Deal, and sustainability principles. Examples of thesis topics include unconventional hydropower.

Teachers in the study field conduct demonstration research projects that integrate the latest scientific achievements into the study content. This integration is achieved through various methods, including lectures, practical tasks, problem analysis, final theses, group projects, teamwork assignments, inclusive teaching, and hybrid and distance learning.

Key topics include renewable energy sources, sustainable construction, smart barn applications in agricultural production buildings, soil moisture regime regulation, the use of local building materials with low energy consumption, and smart regulated drainage systems.

2.1.3. Opportunities for students to engage in research are consistent with the cycle

Second cycle students at Vytautas Magnus University Agriculture Academy prepare research-based final theses. The outcomes of their research are published in scientific or popular science journals and presented at conferences. The university annually organises the "Young Scientist" student scientific conference, which attracts civil engineering students. During R&D project activities, efforts are made to attract the most talented students for their implementation. This approach aims to engage students in research and doctoral studies.

VMU students have excellent opportunities to travel to 34 foreign countries for their education, internships, short-term courses, and schools under the ERASMUS+ programme. Students are regularly informed about these opportunities through university outreach but in reality, rarely have the time to avail of this opportunity due to work commitments.

The hydraulic engineering programme offers only part-time studies, which limits students' ability to travel abroad while working in Lithuania. These limitations are compensated by internships and training abroad organised by employers. Faculty and administration actively motivate students to engage in international activities.

ANALYSIS AND CONCLUSION (regarding 2.1.)

Research within the field of study is conducted at a sufficiently advanced level. The curriculum is closely aligned with the latest developments in science, art, and technology. Opportunities for student engagement in research are consistent with the academic cycle. However, certain details require clarification, such as the alignment of Erasmus programmes with strategic orientations and partners, as well as the acquisition of ECTS credits through exchange programmes.

AREA 2: CONCLUSIONS

AREA 2	Unsatisfactory - 1 Does not meet the requirements	Satisfactory - 2 Meets the requirements, but there are substantial shortcomings to be eliminated	Good - 3 Meets the requirements, but there are shortcomings to be eliminated	Very good - 4 Very well nationally and internationally without any shortcomings	Exceptional - 5 Exceptionally well nationally and internationally without any shortcomings
Second cycle				X	

COMMENDATIONS

1. Highly competent specialised research groups, capable of addressing modern scientific tasks in priority scientific areas.

2. Enhancing the application of technologies such as drones, robotics, 3D printing, nanotechnology, and other advanced technologies in hydraulic engineering.

3. Studies are grounded in the results of ongoing R&D activities. Conditions have been established to involve students in research through the preparation of theses and their participation in research project activities.

4. Students' theses are based on research that addresses current topics using advanced research methods.

RECOMMENDATIONS

To address shortcomings

None.

For further improvement

1. Further encourage student participation on Erasmus exchange programmes and inform students that ECTS credits obtained while on Erasmus programmes may be used as part of the programme.

2. Include research more in the teaching subject content and assessments.

AREA 3: STUDENT ADMISSION AND SUPPORT

3.1.	Student selection and admission is in line with the learning outcomes

FACTUAL SITUATION

3.1.1. Student selection and admission criteria and procedures are adequate and transparent

Student admission to the second-cycle hydraulic engineering study programme at Vytautas Magnus University follows transparent and well-defined procedures. Admission is based on a competitive ranking system that evaluates applicants' prior academic achievements. The primary criteria for admission is the possession of a relevant bachelor's degree.

Consistently high and increasing scores have been achieved for this programme during the review period (7.99 average) indicating that the programme is chosen by motivated students. There were al least 16 students per year enrolled in the programme since 2022.

For candidates with a background outside the engineering sciences, additional subjects are required to ensure their competency. These applicants are evaluated based on their previous academic performance, and a study plan is developed for them to meet the essential requirements for the programme.

3.1.2. Recognition of foreign qualifications, periods of study, and prior learning (established provisions and procedures)

Vytautas Magnus University has established procedures for recognising foreign qualifications and periods of study to facilitate student mobility and international engagement. The recognition process follows national and institutional regulations and is managed through the university's academic affairs office.

The various procedures outline the process for evaluating qualifications acquired abroad, formal and non-formal learning in Lithuania and abroad and competencies acquired in partial studies.There have been no cases of credit/non-credit for part-time study abroad for the hydraulic engineering programme in the review period and there were no cases of crediting of competencies acquired by non-formal and informal learning.

ANALYSIS AND CONCLUSION (regarding 3.1.)

The recognition of foreign qualifications and prior learning at VMU is well-structured, providing clear pathways for all students. This approach promotes inclusivity and encourages academic mobility within the programme. During the evaluation visit, students expressed satisfaction with the recognition processes, although some indicated that clearer guidance on credit transfer procedures would be beneficial. It was also evident that students are more likely to participate in short-term mobility, rather than long-term, which is something that could use more attention.

3.2.	There is an effective student support system enabling students to maximise their learning progress

FACTUAL SITUATION

3.2.1. Opportunities for student academic mobility are ensured

The university actively supports academic mobility through participation in the ERASMUS+ programme, bilateral agreements with foreign institutions, and research-based internships. VMU students can undertake studies, internships, and short-term courses in over 34 partner countries.

Despite the part-time format of the hydraulic engineering programme, which limits long-term international mobility, students have the opportunity to engage in short-term academic exchanges. Additionally, industry partners facilitate international internships, ensuring that students can gain global experience even if full-time mobility is restricted.

Five students availed of internships and short-term placements abroad during the reporting period of which three were 3-month internships in the Netherlands and India and the other two were internships of one week in Poland for project activities.

3.2.2. Academic, financial, social, psychological, and personal support provided to students is relevant, adequate, and effective

VMU provides comprehensive student support services, including academic advising, career counseling, financial aid, and psychological support. Academic advisors assist students with course selection and study planning, ensuring that they achieve their learning objectives efficiently.

Students have access to scholarships and financial aid programmes that support both academic and extracurricular activities. The university also offers psychological counseling and social support services to ensure students' well-being. Various initiatives, such as mentorship programmes and student organisations, further enhance student engagement and community integration.

VMU has a students association which is working in synergy with VMU administration on enhancing the study quality, meeting students' needs regarding social and academic affairs, which is very commendable.

3.2.3. Higher education information and student counselling are sufficient

The university provides students with essential academic and administrative information through multiple channels, including the official website, student portals, and direct consultations. New students receive orientation sessions to familiarise themselves with university procedures and available support services. Orientation sesions for new students are often organised in collaboration with the VMU Students Association.

Regular information sessions, career guidance events, and one-on-one counseling help students make informed decisions regarding their studies and future careers. The university also ensures that international students receive specialised counseling regarding visa procedures, residence requirements and cultural adaptation.

ANALYSIS AND CONCLUSION (regarding 3.2.)

VMU ensures that students receive sufficient information and guidance throughout their studies. The availability of diverse information sources and personalised counseling strengthens student engagement and academic success. Students generally felt well-informed, but some suggested improvements in communication regarding updates on laboratory resources and practical training opportunities.

Enhancing communication strategies, such as integrating real-time updates on available resources and training schedules via student portals, could help students stay informed. Expanding career guidance services to include more industry networking events and alumni mentorship programmes would also support students in making informed career choices. Overall, students are well informed and very satisfied with the study programme, which is very commendable.

AREA 3: CONCLUSIONS

AREA 3	Unsatisfactory - 1 Does not meet the requirements	Satisfactory - 2 Meets the requirements, but there are substantial shortcomings to be eliminated	Good - 3 Meets the requirements, but there are shortcomings to be eliminated	Very good - 4 Very well nationally and internationally without any shortcomings	Exceptional - 5 Exceptionally well nationally and internationally without any shortcomings
Second cycle				X	

COMMENDATIONS

1. Well-developed and very strong student support system - this contributes to a positive learning environment and enhances student well-being.

2. The level of student and teaching staff mobility in the programme is quite high.

RECOMMENDATIONS

To address shortcomings

None.

For further improvement

1. Students are more likely to participate in short-term mobility, rather than long-term, which is something that could use more attention.

2. Enhancing communication strategies, such as integrating real-time updates on available resources and training schedules via student portals, could help students stay informed.

3. Expanding career guidance services to include more industry networking events and alumni mentorship programmes would also support students in making informed career choices.

AREA 4: TEACHING AND LEARNING, STUDENT ASSESSMENT, AND GRADUATE EMPLOYMENT

4.1.	Students are prepared for independent professional activity

FACTUAL SITUATION

4.1.1. Teaching and learning address the needs of students and enable them to achieve intended learning outcomes

The second cycle civil engineering programme is offered part-time, combining intensive classroom sessions with distance learning to balance work and study. The classroom phases take place in multi-week training sessions, supplemented by distance learning opportunities using Office 365 Teams and BigBlueButton. There are comprehensive instructions and support systems for teachers and students that combine face-to-face and virtual learning formats. A variety of instructional methods - from lectures and seminars to laboratories - and a variety of assessment methods are used, depending on the course content, to achieve practical skills and targeted learning outcomes.

The course description includes time for independent work. At the beginning of the semester, lecturers provide an introduction to the syllabus and give advice by email, in Moodle and in contact meetings. Independent study includes preparation for laboratory, practical and seminar work, discussions, individual and group assignments, and essays. It complements lectures and encourages independent use of IT and critical analysis. Performance is incorporated into a cumulative assessment system with intermediate and final examinations. Graduates may go on to research, teaching or doctoral studies.

4.1.2. Access to higher education for socially vulnerable groups and students with individual needs is ensured.

The Disability Policy of VMU *University of Inclusive Opportunities* approved by the VMU Senate in 2021, aims to increase accessibility for persons with disabilities by adapting study and working conditions. The policy establishes a sustainable action plan to enhance higher education opportunities, promote employment in academia, and secure accessible environments for all. It provides for individualised study schedules for socially vulnerable groups and students with special needs, with remote guidance via modern video tools and virtual learning materials—although none were utilised during the evaluation period. Additionally, tuition and dormitory fee discounts, as well as scholarships, are offered to vulnerable groups. Students with disabilities receive comprehensive support from a designated coordinator, including accessible parking, adapted facilities, personalised counselling, and integrated data systems. Regular educational campaigns further foster a culture of inclusivity at VMU.

ANALYSIS AND CONCLUSION (regarding 4.1.)

The VMU offers both full-time and part-time programmes. The organisation of the curriculum for part-time students could not be fully clarified during the visit and discussions on site. It was stated that the individual needs of the students are taken into account and that, if necessary, the timetable can be adapted individually. However, it remained unclear how this could be implemented in organisational terms.

Part-time students complete their studies in the first five semesters with a workload of approximately 18 ECTS per semester. This gives them some freedom to fulfil their job commitments at the same time. Nevertheless, a full-time commitment is expected in the 6th semester with a 30 ECTS Master's thesis. This is not really possible if the student has a job.

In addition, this structure is not very socially friendly. Students being physically or mentally handicapped or with additional accountabilities, such as care responsibilities, educational tasks are effectively excluded. All the measures and facilities mentioned in the SER with regard to socially vulnerable groups refer only to physically disabled people. Groups of people with other sensitivities, such as different cultural origins, nationality or religion, caring responsibilities, specific ways of life, first-generation students, gender or mental health impairments, are not taken into account.

There is also no professional contact point for, e.g. discrimination, sexualised violence, religion, abuse of power, etc. These are all dealt with by an internal contact person. This person is neither independent nor professionally trained.

However, the professional handling and establishment of appropriate contact and support points should be a university-wide task and cannot be covered by one faculty or even one study programme alone.

4.2.	There is an effective and transparent system for student assessment, progress monitoring, and assuring academic integrity

FACTUAL SITUATION

4.2.1. Monitoring of learning progress and feedback to students to promote self-assessment and learning progress planning is systematic

Monitoring of student progress at VMU is governed by official regulations and follows several stages. Initially, the process includes analysing first-year preparation, course registrations, exam participation, intermediate and final evaluations, as well as data from periodic surveys and social integration reviews.
Each semester begins with student registration, followed by discussions on learning outcomes to help track progress. The Faculty of Engineering is primarily responsible for overseeing this monitoring, preventing dropouts, organising teacher consultations, and providing mentoring and other support through a designated study administrator. Teachers continuously assess students during the semester and offer additional counseling when needed, while administrators contact students who miss lectures or assessments. Provisions allow for postponed assessments and free retakes in justified cases. Students are encouraged to self-monitor their progress using the Studis information system and Moodle. The university employs a cumulative assessment system based on a ten-point scale, which motivates continuous improvement, complemented by systematic feedback and comprehensive academic, social, financial, and psychological support.

4.2.2. Graduate employability and career are monitored

VMU actively engages its alumni through clubs and departmental initiatives. Graduates receive regular newsletters and cultural as well as educational activity updates, coordinated by an alumni advisor. The VMU Alumni Club unites former students, encouraging them to attend university events that boost professional skills and career opportunities. Club members also organise meetings, lectures, discussions, field trips, and serve as consultants on various committees. Additionally, VMU alumni can register as career mentors on the idialogue platform, while the VMU Academy of Agriculture maintains its own club to promote partnerships and assist students with career planning.

The university also thoroughly monitors graduate employment and career progression using annual online surveys conducted by the Career Centre, supplemented by data from the Employment Service and the Government Strategic Analysis Centre. For example, data from the hydraulic engineering programme indicate high employment rates (88.9% and 84.6% in consecutive years), with a significant volume of highly qualified positions. Graduates consistently rate VMU's role in their professional preparation as good, valuing the academic, practical, and independent learning experiences. The faculty receives numerous job offers each year, underscoring the strong market demand for its graduates' skills.

4.2.3. Policies to ensure academic integrity, tolerance, and non-discrimination are implemented

VMU upholds academic integrity through its Statute, Code of Ethics, and regulations on plagiarism prevention. Non-discrimination is ensured by the Code of Ethics and the Gender Equality Plan (2021-2025), which promotes institutional change for gender balance. Cases of dishonest student behavior during assessments result in immediate termination, investigation, and a grade of zero. Plagiarism prevention includes clear guidelines and student education on ethical writing practices. No violations of academic integrity, tolerance, or non-discrimination have been recorded in the past three years.

4.2.4. Procedures for submitting and processing appeals and complaints are effective

Appeals and complaints regarding the study process at VMU were previously regulated by the Appeals Regulations until 2023 and are now handled under the Dispute Resolution Commission Regulations. Students can appeal assessment results or procedure violations. The commission may uphold, modify, or dismiss appeals, allow retakes, or report unrelated violations. No appeals, complaints, or dishonesty-related exclusions occurred in the analysed study field during the period.

ANALYSIS AND CONCLUSION (regarding 4.2.)

The response rate to student surveys is not always sufficient. It would be highly desirable to motivate students even more to complete the forms. It might be helpful to communicate to students that all feedback is very welcome and to demonstrate this with a feedback session. This could be used to present and discuss the students' evaluation results and to discuss how, for example, suggestions for change can be implemented. This can have a positive effect on the willingness of students to participate in evaluation processes.

The interaction with employers is very positive and close. The programme management works closely with the Alumni Club and the employers. The labour market is very satisfied with the content of the programme, but would like to see significantly more graduates.

The structures for dealing with academic integrity, tolerance and non-discrimination are not yet very developed. There is currently no university-wide strategy and no official contact points for those concerned.

AREA 4: CONCLUSIONS

AREA 4	Unsatisfactory - 1 Does not meet the requirements	Satisfactory - 2 Meets the requirements, but there are substantial shortcomings to be eliminated	Good - 3 Meets the requirements, but there are shortcomings to be eliminated	Very good - 4 Very well nationally and internationally without any shortcomings	Exceptional - 5 Exceptionally well nationally and internationally without any shortcomings
Second cycle			X		

COMMENDATIONS

1. The expert panel were impressed with the interactions and engagement of staff, students and employers.

2. Students are happy with their experience of the programme.

3. The Alumni Club has the potential to be very effective for this programme.

RECOMMENDATIONS

To address shortcomings

1. Consider the credit structure in the sixth semester in terms of the ECTS credits. The programme should support part-time learning across all semesters.

2. Support for socially vulnerable groups is limited, excluding many needs beyond physical disabilities. There are no professional contact points for discrimination or abuse. Academic integrity and non-discrimination structures should be improved.

For further improvement

1. Encourage students to respond to end of year surveys.

AREA 5: TEACHING STAFF

5.1.	Teaching staff is adequate to achieve learning outcomes

FACTUAL SITUATION

5.1.1. The number, qualification, and competence (scientific, didactic, professional) of teaching staff is sufficient to achieve learning outcomes

The department collaborates with other university departments and social partners to ensure a highly qualified teaching staff. Teachers of the programme are experienced professionals, holding positions as teachers or both teachers and researchers.

Teachers enhance their qualifications through internships abroad and participate in professional development and international academic mobility programmes. All programme teachers hold at least a master's degree, with 80% holding a doctoral degree.

Teachers have an average of 21.3 years of practical experience, often gained through freelance or project-based activities. Teacher turnover has been minimal over the last 3 years, with subject responsibilities passed to younger teachers as needed.

Teachers in state-regulated professions need relevant professional experience related to their subjects. The qualifications of teachers ensure the achievement of intended learning outcomes, with most being internationally recognised researchers.

Qualification requirements for associate professor or professor positions ensure high competence. Qualifications are assessed during hiring or periodic evaluations every five years.

ANALYSIS AND CONCLUSION (regarding 5.1.)

Fifteen teachers of the hydraulic engineering programme, as well as their qualifications and competencies in the areas of science, didactics, and professional practice, are appropriate to achieve the learning outcomes. The teaching staff comprise 3 professors, 9 associate professors and 3 lecturers. All of the teaching staff have master’s degrees in civil engineering and have practical experience. 80% of subjects are taught by scientists with a doctoral level degree (20% by professors) and 20% of subjects are taught by lecturers with a master’s degree in civil engineering.

It should be noted that a systematic approach to teacher career development is not entirely evident from the SER information or during discussions at the expert panel site visit.

5.2.	Teaching staff is ensured opportunities to develop competences, and they are periodically evaluated

FACTUAL SITUATION

5.2.1. Opportunities for academic mobility of teaching staff are ensured

VMU teachers can utilise Erasmus+ for teaching visits to partner institutions in the EU/EEA/candidate countries and outside the EU, with about 260 teachers participating annually. Erasmus+ training visits are available for qualification development at any institution in the EU/EEA/candidate countries or partner universities outside the EU. The VMU Science Fund promotes international mobility through competitions for research projects, doctoral research trips, and scientific projects within universities. From 2021-2024, a large number of trips were related to participation in international organisations, networks, editorial boards, and projects, promoting academic mobility and conference participation.

According to the SER, VMU hosted 29 visiting teachers over the last three years through the Erasmus+ mobility programme who deliver open lectures to students. These visits foster ongoing collaborations with faculty from institutions such as the Polytechnic Institute of Coimbra, Latvian University of Life Sciences, etc.

Both outgoing and incoming visits significantly enhance professional networks, inter-institutional collaboration, research cooperation, and joint project development.

5.2.2. Opportunities for the development of the teaching staff are ensured

The expert panel are satisfied that opportunities for academic mobility of the teaching staff, as well as for the professional development of the teaching staff, are well ensured. This was stated in the SER and verified by the expert panel at the site visit. There is a significant emphasis on exchange programmes.

ANALYSIS AND CONCLUSION (regarding 5.2.)

The interviews, surveys, and documents provided indicate that the opportunities for academic mobility and professional development of the teaching staff are very good. Significant emphasis is placed on exchange programmes. However, it is necessary to clarify how these exchange programmes will ensure effective collaboration and positive outcomes for the university, without increasing administrative burdens. The training and education programme for the teaching staff should be specifically tailored to the various educational and career stages, including specialised offerings for senior scientists and early-career researchers.

AREA 5: CONCLUSIONS

AREA 5	Unsatisfactory - 1 Does not meet the requirements	Satisfactory - 2 Meets the requirements, but there are substantial shortcomings to be eliminated	Good - 3 Meets the requirements, but there are shortcomings to be eliminated	Very good - 4 Very well nationally and internationally without any shortcomings	Exceptional - 5 Exceptionally well nationally and internationally without any shortcomings
Second cycle				X	

COMMENDATIONS

1. Teachers in the programme possess high scientific, didactic, and professional competence, which is well-suited for achieving the desired study outcomes.

2. Teachers actively participate in international mobility, effectively utilising the Erasmus+ mobility programme.

3. Conditions for enhancing teachers' competencies through involvement in national and international research projects are favourable.

RECOMMENDATIONS

To address shortcomings

None.

For further improvement

1. Aim to ensure that the exchange programmes and professional development measures not only provide short-term benefits but also have long-term positive impacts that address the specific needs of various groups within the university.

AREA 6: LEARNING FACILITIES AND RESOURCES

6.1.	Facilities, informational and financial resources are sufficient and enable achieving learning outcomes

FACTUAL SITUATION

6.1.1. Facilities, informational and financial resources are adequate and sufficient for an effective learning process

VMU ensures high-quality study conditions through well-developed infrastructure, modern equipment, and accessible facilities. The university offers 311 classrooms, including computer labs and auditoriums equipped with multimedia and video conferencing tools. The hydraulic engineering programme is mainly conducted in the Agriculture Academy (AA), where students have access to 12 auditoriums and specialised laboratories. Master's students use advanced research labs for hydrology, hydrogeology, and material testing, utilising state-of-the-art equipment for experiments and final projects.

VMU prioritises accessibility, with renovated buildings, wheelchair-accessible elevators, adapted dormitories, and specialised equipment in classrooms and libraries for students with disabilities. Digital learning is supported through Moodle, regularly updated for optimal online education, and the Student and Teacher Portals, providing bilingual access to study information.

Students benefit from a wide range of specialised software, including ArcGIS, AutoCAD, and HEC-RAS, used for research and coursework. Licenses are secured as needed, ensuring continued technological support. The university library holds over 1.7 million resources, including 787,000 electronic documents and access to 63 licensed databases. The library is fully adapted for students with special needs, offering assistive technology and plagiarism detection tools such as iThenticate and Oxsico.

VMU also emphasises sports and recreation, hosting Lithuania’s largest university sports complex, designed to be accessible for all students, including those with disabilities.

6.1.2. There is continuous planning for and upgrading of resources.

VMU updates study resources annually based on faculty needs. A centralised system monitors and upgrades hardware and software, ensuring about 20% of computers are renewed each year. Legal and educationally licensed software is used, with regular audits and updates.

Engineering equipment is funded through university, departmental, and project funds. Recent acquisitions include drones, hydrostatic gauges, sonar, and underwater robots for courses like Hydraulic Structures and Water Body Restoration. Sponsors also contribute, such as a stormwater collection system and wastewater treatment unit.

The library collaborates with faculty to acquire necessary study materials. Faculty members and students can request new publications, and interlibrary loans are available. Regular analysis helps improve resource availability and accessibility.

ANALYSIS AND CONCLUSION (regarding 6.1.)

Students are satisfied with the learning environment and the programmes offered at the VMU. The equipment is adequate and makes effective learning and teaching possible in general.

Some of the equipment in the laboratories is relatively basic. The most important content can certainly be covered and taught. However, the impression remains that the experimental equipment could definitely be modernised. This would also make it easier to involve students in experimental work.

The available software is sufficient for standard teaching requirements. However, in order to guarantee training to the latest standards, the provided software needs to be updated and consistently integrated into teaching.

AREA 6: CONCLUSIONS

AREA 6	Unsatisfactory - 1 Does not meet the requirements	Satisfactory - 2 Meets the requirements, but there are substantial shortcomings to be eliminated	Good - 3 Meets the requirements, but there are shortcomings to be eliminated	Very good - 4 Very well nationally and internationally without any shortcomings	Exceptional - 5 Exceptionally well nationally and internationally without any shortcomings
Second cycle			X		

COMMENDATIONS

1. Students are happy with their experience of the programme.
2. The equipment is adequate and makes effective learning and teaching possible in general.
3. The available software is sufficient for standard teaching requirements.

RECOMMENDATIONS

To address shortcomings

1. Prepare a strategy to replace out of date equipment on a regular basis.

For further improvement

1. Continue to try to stay up to date with the latest software packages and laboratory equipment.

AREA 7: QUALITY ASSURANCE AND PUBLIC INFORMATION

7.1.	The development of the field of study is based on an internal quality assurance system involving all stakeholders and continuous monitoring, transparency and public information

FACTUAL SITUATION

7.1.1. Internal quality assurance system for the programmes is effective

Quality assurance and management of programmes at VMU are based on the Standards and Guidelines for Quality Assurance in the European Higher Education Area (2015), national and VMU legal Acts.
The following documents regulate quality assurance at VMU:

- *VMU Statute (2018);*
- *VMU Quality Manual (2022);*
- *VMU State Regulations (2024);*
- *Description of Procedure for Study Quality Assurance at VMU (2022);*
- *Description of the Procedure of Feedback for Improvement of Quality Studies at VMU (2022);*
- *Description of Procedure for Study Course Attestation at VMU (2019);*
- *Description of Procedure for Organisation of Online and Blended Studies at VMU* (2020).

It should be noted that some of the documents above have been updated/established since the last review of the hydraulic engineering programme, as recommended by the 2021 international evaluation panel.

According to the SER, the university has the following units in place to implement and monitor quality assurance of study programmes at VMU:

- University Senate and Rectorate (university level);
- Study Quality Unit (university level);
- Faculty/Academic Council/ Dean/ Chancellor of the Academy (faculty level);
- Study Programme Committee (hereafter – SPC) (programme level);
- Dean/ Head of Department (faculty and programme level).

The SPC is responsible for the coordination of programme implementation including the changes to subjects, preparation of annual programme quality improvement plans and other activities. The SPC ensures the programme is appropriate for the labour market needs and the inclusion of social

partners in programme decisions. The composition of the SPC includes 5 teachers, 1 social partner and 1 student and the meetings are minuted.

Students' representatives can also make proposals for changes to the programme and subjects at face-to-face meetings with teachers. An anonymous survey of students is carried out each semester and the analysed results discussed at SPC meetings and with all teachers of the programme. The annual programme improvement plans are discussed and agreed at SPC, department and faculty level.

7.1.2. Involvement of stakeholders (students and others) in internal quality assurance is effective

Teachers, students, social partners and alumni are invited to present their comments and suggestions for improvement at meetings and through surveys. The VMU Student Representative Council (hereafter - SRU) ensures student involvement in quality assurance activities by selecting student representative and providing training. The social partners are invited to be members of the Business and Social Partners Advisory Board of VMU Agricultural Academy.
Other periodic electronic surveys illicit views of all stakeholders on the following topics:

- Teaching, learning and evaluation of individual subjects;
- Choice of studies;
- Exit surveys;
- Alumni adaption to the labour market;
- Teachers' professional development.

All surveys are analysed and shared using electronic means and published by the university. The SPC analyses surveys annually to identifying programme strengths and areas for improvement and the analysis is based on the following evaluation criteria:

- Alignment of the study programme with the latest scientific trends and labour market;
- Demand for the study programme;
- Suitability and sufficiency of material resources;
- Professionalism of the programme's teachers;
- Student progress;
- Mobility of students and teachers.

7.1.3. Information on the programmes, their external evaluation, improvement processes, and outcomes is collected, used and made publicly available

According to the SER, all stakeholders are consulted via surveys, in meetings and via direct communication on the quality of the hydraulic engineering programme. The annual analysis of the electronic surveys is utilised to ensure timely improvements are made to the programme. All survey decisions are communicated widely with the university at all levels via electronic means and on the university's website.

The response rate on the quality of teacher's work is low and may be a direct outcome of the low student numbers participating in the survey where identification of the student may be of concern. With the smaller class sizes, it is easier to communicate directly with students and this happens.

Examples are provided in the SER of when students and social partners have made suggestions for improvement and how these were implemented. A recurring theme in the discussions with social partners is the deficit of hydraulic engineering graduates available to the labour market.

7.1.4. Student feedback is collected and analysed

Surveys of students over the review period (2021 – 2024) were carried out on a regular basis, the results analysed, and the summarised results were presented to the students.

According to the SER over the three years, students rated the hydraulic engineering programme as very good or excellent in all aspects, with an average score of 96.3%. When asked about their view of their studies, 94% of students were positive. After 12 months, 50% of student expressed the view that they were well prepared for their career and 70% reported that they found the knowledge and skills acquired during the study programme most useful.

ANALYSIS AND CONCLUSION (regarding 7.1.)

Quality Assurance of programmes is regulated at VMU using policies and procedures, most of which have been developed or updated since the last expert panel review in 2021. Quality assurance is implemented and monitored at university, faculty and study programme level where the individuals responsible for quality assurance have been identified. The university Study Quality Unit and the teaching staff collaborate regularly on all quality assurance aspects of the programme and this is an improvement since the last expert panel review.

The SPC is the main body responsible for the coordination of the programme and its appropriateness to labour market needs. The review of the SER and the site visit meetings confirmed that surveys and meetings are the main methods used to illicit information about the programme from social partners and stakeholders and this happens regularly. Suggestions for programme improvement have been implemented and this is evidenced in the annual quality assurance plan created by the SPC.

Student responses to the end of semester surveys are low but there are face-to-face meetings between individual students and teaching staff which may be affecting this response rate and with low student numbers the anonymity of students taking the survey is questionable.
Based on the SER and the information provided at the site visit, the expert panel can confirm that the various surveys influence the decisions taken about the hydraulic engineering programme and these are captured in the annual quality assurance plan. Meetings with employers, graduates and students provided positive feedback regarding the quality of the programme and that the skillset of graduates is appropriate for the civil engineering study field.

AREA 7: CONCLUSIONS

AREA 7	Unsatisfactory - 1 Does not meet the requirements	Satisfactory - 2 Meets the requirements, but there are substantial shortcomings to be eliminated	Good - 3 Meets the requirements, but there are shortcomings to be eliminated	Very good - 4 Very well nationally and internationally without any shortcomings	Exceptional - 5 Exceptionally well nationally and internationally without any shortcomings
Second cycle			X		

COMMENDATIONS

1. The university has established quality assurance procedures and processes for all of its programmes of study. Quality assurance is monitored at university, faculty and programme level where the SPC manages the quality assurance at programme level with the assistance of the university's Study Quality Unit.

2. Information relating to the hydraulic engineering programme is obtained from all stakeholders using various means including electronic surveys, discussions at meetings and direct one-to-one communication.

3. Feedback obtained from social partners and stakeholders influences the decision making on the quality of the study programme.

4. Surveys are analysed and quality assurance outputs are published on the university's website.

5. An annual programme improvement plan is prepared by the SPC and implemented.

6. The results of the previous evaluation have been considered and appropriate changes implemented.

RECOMMENDATIONS

To address shortcomings

1. The participation rate of students is low for the end of semester subject surveys. Students should be further encouraged to express their opinion, make proposals for change and to actively participate in the decision-making for their programme of study.

For further improvement

None

V. SUMMARY

The expert panel reviewed the SER and relevant documents prior to the site visit and would like to thank the university and programme team for the preparation of a well-written SER, providing requested documentation and for their positive engagement with the expert panel during the site visit.

The second cycle hydraulic engineering programme is unique in Lithuania and provides graduates with appropriate skills for the labour market. Social partners engage actively with the programme to ensure graduates have the skills appropriate to this civil engineering study field as there is a shortage of these graduates. The students are working full-time as well as studying this programme part-time so the 30ECTS credits in the final semester is a significant challenge for them. Environmental engineering and agricultural science elements of the programme should be included as part of the core module delivery.

VMU has established a solid foundation for effectively implementing the learning objectives of the curricula through its clearly defined interaction between research and teaching, as well as the targeted involvement of students in research projects. Ensuring the sustainability of these structures is crucial for maintaining high quality in education and research in the long term.

VMU ensures that students receive sufficient information and guidance throughout their studies. The availability of diverse information sources and personalised counseling strengthens student engagement and academic success. Enhancing communication strategies, such as integrating real-time updates on available resources and training schedules via student portals, could help students stay informed. Overall, students are well informed and very satisfied with the study programme.

VMU offers full-time and part-time programmes, but the organisation of part-time studies is unclear. The final semester's full-time workload (30 ECTS) conflicts with employment. Student feedback participation is low, requiring motivation. Support for socially vulnerable groups is limited, excluding many needs beyond physical disabilities. There are no professional contact points for abuse or discrimination. Academic integrity and non-discrimination structures should be improved. Employer relations are strong, with a strong desire for higher graduate numbers.

The faculty is well-structured and capable of meeting the current requirements of the curricula. Additionally, mobility plans are utilised to ensure the long-term competencies of the teaching staff. The training and education programme for the teaching staff should be tailored to the various educational and career stages, including specialised offerings for senior scientists and early-career researchers.

Students are satisfied with VMU's learning environment, modern laboratory facilities, and up-to-date teaching software. Equipment and software should be regularly updated and a strategy prepared to replace out of date equipment on a regular basis.

Quality assurance at the university has been enhanced since the last expert panel review in 2021 with policies and processes updated, engagement between the Study Quality Unit, faculty, department and teaching staff enhanced and improvements implemented through the annual quality assurance plan for the programme. Student could be further encouraged to complete the end of semester surveys anonymously.