

CENTRE FOR QUALITY ASSESSMENT IN HIGHER EDUCATION

EVALUATION REPORT STUDY FIELD of ECOLOGY

at the Vilnius University

Expert panel:

- 1. Prof. Dr. Judit Padisák (panel chairperson), academic;
- 2. Assoc. Prof. Dr. Bethan Louise Wood, academic;
- 3. Prof. Dr. Edita Baltrėnaitė-Gedienė, academic;
- 4. Mr. Kęstutis Skrupskelis, representative of social partners;
- 5. Mr. Mindaugas Rutalė, students' representative.

Evaluation coordinator - Ms. Ona Charževskytė/ Mr. Gustas Straukas

Report language – English

© Centre for Quality Assessment in Higher Education

Study Field Data

Title of the study programme	Management of natural systems
State code	6213DX002
Type of studies	University studies
Cycle of studies	Second cycle
Mode of study and duration (in years)	Full time, 2 years
Credit volume	120
Qualification degree and (or) professional qualification	Master of Life Sciences
Language of instruction	English, Lithuanian
Minimum education required	Bachelor degree
Registration date of the study programme	April 25, 2012

CONTENTS

I.	Introduction	4
	1.1. BACKGROUND OF THE EVALUATION PROCESS	4
	1.2. EXPERT PANEL	4
	1.3. GENERAL INFORMATION	5
	1.4. BACKGROUND OF THE STUDY FIELD/STUDY FIELD POSITION/STATUS AND SIGNIFICANCE IN TH	1E HEI 5
	General information about the significance of the study field	5
	I. GENERAL ASSESSMENT	
II	II. STUDY FIELD ANALYSIS	7
	3.1. INTENDED AND ACHIEVED LEARNING OUTCOMES AND CURRICULUM	7
	3.2. LINKS BETWEEN SCIENCE (ART) AND STUDIES	11
	3.3. STUDENT ADMISSION AND SUPPORT	13
	3.4. TEACHING AND LEARNING, STUDENT PERFORMANCE AND GRADUATE EMPLOYMENT	15
	3.5. TEACHING STAFF	18
	3.6. LEARNING FACILITIES AND RESOURCES	21
	3.7. STUDY QUALITY MANAGEMENT AND PUBLIC INFORMATION	22
I	V. EXAMPLES OF EXCELLENCE	25
V	. RECOMMENDATIONS	26
V	T. SUMMARY	27

I. Introduction

1.1. BACKGROUND OF THE EVALUATION PROCESS

The evaluation of study fields is based on the Methodology of External Evaluation of Study Fields approved by the Director of the Centre for Quality Assessment in Higher Education (hereafter – SKVC) 31 December 2019 Order No. V-149.

The evaluation is intended to help higher education institutions to constantly improve their study process and to inform the public about the quality of studies.

The evaluation process consists of the main following stages: 1) self-evaluation and self-evaluation report prepared by Higher Education Institution (hereafter – HEI); 2) site visit of the expert panel to the higher education institution; 3) production of the external evaluation report (EER) by the expert panel and its publication; 4) follow-up activities.

On the basis of this external evaluation report of the study field SKVC takes a decision to accredit the study field either for 7 years or for 3 years. If the field evaluation is negative then the study field is not accredited.

The study field and cycle are **accredited for 7 years** if all evaluation areas are evaluated as exceptional (5 points), very good (4 points) or good (3 points).

The study field and cycle are **accredited for 3 years** if one of the evaluation areas was evaluated as satisfactory (2 points).

The study field and cycle are **not accredited** if at least one of evaluation areas was evaluated as unsatisfactory (1 point).

1.2. EXPERT PANEL

The expert panel was assigned according to the Experts Selection Procedure (hereinafter referred to as the Procedure) as approved by the Director of Centre for Quality Assessment in Higher Education on 31 December 2019 Order No. V-149. The site visit to the HEI was conducted by the panel on *2 December 2021*.

Prof. Dr. Judit Padisák (panel chairperson), academic;

Assoc. Prof. Dr. Bethan Louise Wood, academic;

Prof. Dr. Edita Baltrėnaitė-Gedienė, academic;

Mr. Kęstutis Skrupskelis, representative of social partners;

Mr. Mindaugas Rutalė, students' representative.

1.3. GENERAL INFORMATION

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

No.	Name of the document	
1.	List of participants.	
2.	Yearly VU employee evaluation form.	

1.4. BACKGROUND OF THE STUDY FIELD/STUDY FIELD POSITION/STATUS AND SIGNIFICANCE IN THE HEI

General information about the significance of the study field

The current threat of climate change and the different kinds of anthropogenic pollution and disturbances mean that the importance of ecological research and education is unquestionable. These threats have impacts on the carrying capacity of our Planet and its biodiversity which in turn have a cascading effect on human well-being at the societal level. Producing as many students as possible with qualifications in Ecology and Environmental Science is a key task to ensure the life support systems of our subsequent generations.

Information about the role of the HEI

This programme has been integrated into the Vilnius University structure and therefore such changes need time to become effective. However, the role and mission (as to the present situation) are clear: providing particularly for distant learners to advance their knowledge, which is ultimately important for developing suitable experts for the future. Although the programme requires improvement in several aspects (as outlined in this evaluation report) the role and the mission are clear and are reflected in the transferable skills of the graduates notably in the "improvement" for human life on Earth.

II. GENERAL ASSESSMENT

Ecology study field and second cycle at Vilnius University is given a positive evaluation.

Study field and cycle assessment in points by evaluation areas

No.	Evaluation Area	Evaluation of an Area in points*
1.	Intended and achieved learning outcomes and curriculum	3
2.	Links between science (art) and studies	2
3.	Student admission and support	3
4.	Teaching and learning, student performance and graduate employment	4
5.	Teaching staff	4
6.	Learning facilities and resources	3
7.	Study quality management and public information	4
	Total:	23

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

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

^{3 (}good) - the field is being developed systematically, has distinctive features;

^{4 (}very good) - the field is evaluated very well in the national and international context, without any deficiencies;

^{5 (}excellent) - the field is exceptionally good in the national and international context/environment.

III. STUDY FIELD ANALYSIS

3.1. INTENDED AND ACHIEVED LEARNING OUTCOMES AND CURRICULUM

Study aims, outcomes and content shall be assessed in accordance with the following indicators:

3.1.1. Evaluation of the conformity of the aims and outcomes of the field and cycle study programmes to the needs of the society and/or the labour market (not applicable to HEIs operating in exile conditions)

(1) Factual situation

The programme focuses on the management of natural systems and unusually does not have a first cycle degree at the same site; this will naturally have some impact on recruitment to this second cycle programme. The institution recognises the needs of the local area for graduates with a specialism in ecology-related fields and acknowledges that most students they recruit are also in employment but require a further qualification in the subject. The SER states that the programme aspires to develop graduates with ecological competency in preserving ecosystem services and their associated biodiversity, restoring degraded ecosystems, and ensuring appropriate conservation of landscapes and the sustainability of biodiversity.

The aims and outcomes are constructed to produce specialists who will have a key part to play in the conservation and preservation of natural environments. The programme will also meet some of the requirements of the European Green Deal e.g., specialists in environmental management.

(2) Expert judgement/indicator analysis

The programme has run as part of Vilnius University for 11 months and work has been undertaken to ensure the aims and outcomes meet government requirements and the needs of the workplace. Clearer articulation of the opportunity for students to undertake practical ecology fieldwork would be helpful; it is acknowledged that this opportunity does exist on the recreation ecology course as stated in the meeting with teaching staff.

3.1.2. Evaluation of the conformity of the field and cycle study programme aims and outcomes with the mission, objectives of activities and strategy of the HEI

(1) Factual situation

Limited information is provided in the SER for this part of the evaluation. It is recognised that the programme has only be running within Vilnius for 11 months, but clear links to the mission and strategy of Vilnius (and previously Ŝiauliai) would have been helpful. A spurious link to the mission of Vilnius is suggested in the statement: "to strengthen Lithuanian and world cognitive and creative powers, foster academic and other spiritual and social values, educate active and responsible citizens and society leaders", but it is not clear how the programme provides some of these – examples would have been helpful to strengthen the

link. Limited content provided on the conformity to the strategy and objectives of activities of Vilnius University.

(2) Expert judgement/indicator analysis

Future SERs should provide explicit information on how the programme conforms to the mission, objectives of activities and the strategy of Vilnius University. It is however acknowledged that a new long-term strategic action plan for Vilnius is being prepared relating to the programme which will also focus on the implementation of the University's objectives at Ŝiauliai Academy.

3.1.3. Evaluation of the compliance of the field and cycle study programme with legal requirements

(1) Factual situation

Although the SER provides footnote links to some relevant general legal acts and obligations published by the Lithuanian Government, it would have been helpful to include a bulleted list of the names of the documents for ease of reference. Nevertheless, the aims and outcomes are clearly linked to the Description of the field of Ecology studies (Order No. V-1863 of the Minister of Education, Science and Sports of the Republic of Lithuania of 30 November 2020, and the credits match that of a second cycle degree.

(2) Expert judgement/indicator analysis

The programme complies with the applicable legal requirements for the study field and cycle.

3.1.4. Evaluation of compatibility of aims, learning outcomes, teaching/learning and assessment methods of the field and cycle study programmes

(1) Factual situation

Content in the SER clearly demonstrates the compatibility and relationship of the aims and learning outcomes with the learning, teaching and assessment utilised on the programme. In addition, the teaching methods, learning opportunities and assessments are variable across the constituent courses.

(2) Expert judgement/indicator analysis

The mapping matrices of subjects, study results and methods in the Appendices, clearly demonstrate the compatibility of the aims, outcomes, teaching, learning and assessment methods to the study field and cycle. Also it would be best for the university to follow the SER template provided by SKVC as it is fit for purpose and enables contributors to be concise in their content for each required section under specific headings and in a specific order. Even though the SKVC template is a recommendation - the future SERs should follow the template explicitly and include key information within the relevant sections, rather than provide said information in an appendix.

3.1.5. Evaluation of the totality of the field and cycle study programme subjects/modules, which ensures consistent development of competences of students

(1) Factual situation

The current programme content contains 45 credits of courses specific to ecology, ranging from Wildlife Resource Management to Recreation Ecology. Other courses focus on e.g., climate change, environmental quality, pollution, and environmental science, while practical subjects include statistics and modelling, and project preparation and management. The meeting with teaching staff suggested that staff teach their specialism which has benefits for the students through research-informed content.

The proposed programme content contains 75 credits of ecology-specific courses and will provide graduates with a stronger ecological competency as a result. This means that the focus of the programme, which distinguishes it from the other ecology programmes in Lithuania, will be closer to the statement that it: 'focuses on the development of ecological competencies that are necessary to address the stability of ecosystem services and the abundance of organisms in them and to restore damaged natural components, as well as to ensure rational landscape conservation and biodiversity sustainability'.

The previous evaluation had several recommendations, one of which referred to expanding the number of optional courses available to students and the potential to include those from other departments. From the new programme proposal, the number of optional courses has increased from 5 to 6 optional courses available in year 2 (with a greater credit allocation per course); however, what is less clear is whether these are in partnership with other departments. It is also still ambiguous despite the meeting with the SER staff as to why optional courses are only offered in the third semester of the programme and not spread across the first three semesters.

(2) Expert judgement/indicator analysis

The proposed programme content should provide students with a greater depth of ecological knowledge for managing ecosystem services and preserving and conserving landscapes and biodiversity. It should also provide them with more practical knowledge which can be applied to ecological issues. These will enhance their employability.

3.1.6. Evaluation of opportunities for students to personalise the structure of field study programmes according to their personal learning objectives and intended learning outcomes (1) Factual situation

Students can personalise their programme through optional course choice and the research topic for their thesis. Six optional courses are available on the proposed new programme content (five on the current), although these are currently confined to one semester only. These courses offer a variety of practical and theoretical knowledge (remote sensing in natural systems through to natural education). Students can choose their own topic for their master thesis, although of the 9 titles provided, only one was not botanically based, and 4 were supervised by the same staff member. However, discussion with the current students

during their meeting identified that there was a greater diversity of topics to be submitted in 2021 and 2022 – these included anthropogenic impacts of recreation, heavy metal pollution, environmental system management, and water quality.

(2) Expert judgement/indicator analysis

Although the choice of optional courses is lower than in the other second cycle ecology programmes in Lithuania, students can personalise their learning to suit their interests. The thesis titles presented seem to suggest a focus on mainly plant-based research, although discussions with the students on the programme provided some reassurance when they provided their chosen topics.

3.1.7. Evaluation of compliance of final theses with the field and cycle requirements

(1) Factual situation

Students undertaking the master thesis were governed by the General Principles of the Description of the Procedure for the Preparation and Defence of Final Theses which were approved by the order of the Rector of ŠU. With the move to Vilnius University, students are now governed by the Provisions for Preparation, Defence and Accumulation of Study Writing Papers of Vilnius University which are approved by the institution's Senate. It is suggested in the SER that students can suggest their own topics, although no mention is made of the input of the social partners – this was a recommendation from the previous evaluation – apart from the appointment of a social partner representative as the chairperson of the commission for the qualifying of master theses.

(2) Expert judgement/indicator analysis

Only nine thesis titles were available from 2018-2019 with no graduates in 2020. This does reflect the small numbers of students on the programme. Although there was a focus on plant-based research, topics were relevant to the programme.

Strengths and weaknesses of this evaluation area:

(1) Strengths:

- 1. The new long-term strategic action plan being prepared for Vilnius relating to the programme will focus on the implementation of the University's objectives at Šiauliai Academy.
- 2. The proposed programme content should provide students with a greater depth of ecological knowledge for managing ecosystem services and preserving and conserving landscapes and biodiversity.

(2) Weaknesses:

1. Detailed information should be included on the conformity of the aims and outcomes to the mission, objectives of activities and strategy of the HEI.

2. Social partners should be consulted for input into thesis topics to ensure the relevance and appropriateness of the subject matter for the workplace. This would also address the recommendations from the previous evaluation which suggested stronger relations with industry.

3.2. LINKS BETWEEN SCIENCE (ART) AND STUDIES

Links between science (art) and study activities shall be assessed in accordance with the following indicators:

3.2.1. Evaluation of the sufficiency of the science (applied science, art) activities implemented by the HEI for the field of research (art) related to the field of study

(1) Factual situation

According to the SER, the target topic of the staff is "assessment and modelling of the sustainability of ecological processes and ecosystem services in natural ecosystems and anthropogenic environments in the conditions of a changing climate". In the period 2017-2020 staff members published 18 papers in WoS journals falling into categories Q1-Q3 quartiles.. Of these, only 5 are first authored by three staff members; others are typically coauthored papers. The bulk of the publications appeared in national and international conference materials. Staff members are involved in a number of international, bilateral and national projects (SER Table 5). Material infrastructure for research developed in the past three years.

(2) Expert judgement/indicator analysis

Scientific advance of the staff would benefit from a well specified research activity preferably focussed on particular fields that fit best to their existing knowledge and competences. Though the SER reports on increasing publication activity in WoS journals, publication activity of the bulk of the staff is restricted to contribution to papers first-authored by others. Life-long scientific production of the staff members (searched in the WoS) corresponds only in two cases to international standards. Additionally, staff members' scientific profiles (judged to journals' topics in the WoS) are very scattered showing little coherence. This may represent a difficulty in composing competitive research teams. In general, publication activity in WoS indexed journals should be substantially increased along with selecting focal areas of research. The composition and expertise of teachers is sufficient for running an Ecology & Environmental science MSc programme but at present it does not seem appropriate to be a competitive research team. Local material infrastructure needs further development in order to increase efficiency of both science and education. Tight cooperation with scientists in Vilnius, may broaden perspectives.

3.2.2. Evaluation of the link between the content of studies and the latest developments in science, art and technology

(1) Factual situation

The content of the studies corresponds to what is needed in fields of ecology and environmental science. However, in absence of well defined research focus it cannot be judged how well it is linked to the latest developments of science. Titles of students' master theses show only moderate overlap with the publication topics of the staff members but in some cases are related to the problems the (mostly distant learner) students face. During the meetings, students exhibited a very high level of environmental awareness and dedication to solve practical environmental problems.

(2) Expert judgement/indicator analysis

Staff members should define a clear focus of research for tightening the link between their research and the latest development of science while remaining open to supervise students with self-selected master thesis topics.

3.2.3. Evaluation of conditions for students to get involved in scientific (applied science, art) activities consistent with their study cycle

(1) Factual situation

During the period investigated in this report, only nine students graduated and only four master theses were made available in full on request of the evaluation committee. Technical quality, structure and content of the master theses largely correspond to international standards though they are rarely hypothesis centred but rather descriptive. Students use both local and international literature. According to the SER, only one student prepared a paper and only two gave research presentations. Students have full access to material infrastructure (with assistance if needed) and some students' working places make available their infrastructure for master thesis preparation. The bulk of the staff members adapted their teaching methods well to the lockdown situation.

(2) Expert judgement/indicator analysis

Thesis quality can be improved by focussing on more hypothesis centred research. Statistical analyses are in many cases restricted to the very minimal use of the available tools. Literature lists in some cases are incomplete and needs attention. Most staff members adapted their teaching methods well to the lockdown situation, which was welcome by distant learners. This programme appears more suited to applied research than to basic research.

Strengths and weaknesses of this evaluation area:

(1) Strengths:

- 1. Good competence in statistical methods essential for research in ecology and environmental science;
- 2. Increasing activity in national and international projects;
- 3. High level sensitivity of students to solve environmental problems;
- 4. Good adaptation to on-line teaching methods that will be useful in the future especially for distant learner students.

(2) Weaknesses:

- 1. Publication activity in WoS indexed journals of the bulk of the staff has been still insufficient despite recommendations of the previous accreditation report;
- 2. Material resources need further investments;
- 3. Cooperation with other research groups located in Vilnius needs tightening;
- 4. Clear research focus is not apparent from publications;
- 5. Only few students are involved in scientific dissemination.

3.3. STUDENT ADMISSION AND SUPPORT

Student admission and support shall be evaluated according to the following indicators:

3.3.1. Evaluation of the suitability and publicity of student selection and admission criteria and process

(1) Factual situation

During the assessment period, admission to the Programme was carried out in accordance with the rules of admission of students to ŠU approved by the Senate of ŠU. Persons who have completed the first cycle of university studies in life sciences, agriculture, veterinary science, environmental science and natural geography are granted the right to study for a master's degree. Also studies in other fields of science or professional bachelor studies and additional studies The competitive score for the master's study programmes consists of the sum of the weighted average of the diploma supplement assessments and additional points (scientific publications, reports at scientific conferences, etc.).

(2) Expert judgement/indicator analysis

The requirements for entrants are clear, and the formula for calculating the competitive score is presented in an understandable way.

3.3.2. Evaluation of the procedure of recognition of foreign qualifications, partial studies and prior non-formal and informal learning and its application

(1) Factual situation

The procedure for crediting study results during the assessment period was in accordance with the Lisbon Recognition Convention, "Description of the Procedure for Recognition of Education and Qualifications Related to Higher Education and Acquired by Foreign States" and "educational programs of international organisations, evaluation methodology" and other relevant documents. The application of credit procedure applies to students who have graduated, studied, or are studying in Lithuania or abroad according to higher education study programmes and who wish to continue their studies.

(2) Expert judgement/indicator analysis

The procedure and description of the crediting of qualifications obtained abroad, partial study results and academic results of previous studies are clear and understandable.

3.3.3. Evaluation of conditions for ensuring academic mobility of students.

(1) Factual situation

ŠU students have many opportunities to go for a semester or year abroad as part of their studies; this is in addition to professional internships during the summer, graduate internships immediately after studies under Erasmus +, and through bilateral cooperation agreements. In total, students in the field can spend up to half of their study period in mobility programmes. However, the data and the meeting with university students suggests that students are reluctant to take advantage of these mobility opportunities. Students are encouraged to participate in lectures on ecology led by foreign university lecturers. In order to increase the internationalisation of students, the University offers students to join the ARQUS alliance to develop not only professionally but also general competencies.

(2) Expert judgement/indicator analysis

The University creates suitable and favourable conditions for students to go to study and/or practice in international higher education institutions. Students however do not take advantage of these available opportunities for personal reasons - family, work, financial obligations. Despite everything, students have good opportunities to participate in the international community, share experiences with foreign students and receive relevant information from foreign teachers.

3.3.4. Assessment of the suitability, adequacy and effectiveness of the academic, financial, social, psychological and personal support provided to the students of the field

(1) Factual situation

The connection of ŠU to VU has particularly enhanced the opportunities and services of student support. All students in the field have access to: academic information and counselling, personalised career services, information technology services, library and information services, financial support, accommodation services, cultural, leisure services and the opportunity to participate in student activities. Particular attention is paid to psychological services, spiritual and religious services, and the provision of support and services to students with special needs. VU ŠA students can use new forms of support: mentoring programmes, student research societies, services of academic counsellors, services provided by the career centre, and various training opportunities.

(2) Expert judgement/indicator analysis

Support for students has been considerably enhanced with the merger of ŠU and VU. The provision of social, financial, psychological and emotional support has increased and is now accessible to a greater number of students. Changes to their programme, access to financial,

social and other consulting activities following the merger of the universities are positive outcomes of the merger.

3.3.5 Evaluation of the sufficiency of study information and student counselling

(1) Factual situation

Students admitted to the field are first introduced to their study programmes during the integration week, during which a special schedule of lectures and meetings is offered to new students.

(2) Expert judgement/indicator analysis

During the meeting with the students, the students appreciated the flexibility of the study process, especially the quality of distance learning.

Strengths and weaknesses of this evaluation area:

(1) Strengths:

- 1. The flexibility of the programme, combined with distance learning opportunities, enables students to combine their studies with professional activities.
- 2. Students now have access to academic, financial and social support, as well as a wide range of leisure activities following the merger.

(2) Weaknesses:

- 1. The study programme has low numbers of students and would benefit from a more active development policy or strategy towards student recruitment.
- 2. Despite the Covid-19 pandemic, student mobility is very poor. The possibility of distance learning under the ERASMUS programme needs to be considered.

3.4. TEACHING AND LEARNING, STUDENT PERFORMANCE AND GRADUATE EMPLOYMENT

Studying, student performance and graduate employment shall be evaluated according to the following indicators:

3.4.1. Evaluation of the teaching and learning process that enables to take into account the needs of the students and enable them to achieve the intended learning outcomes

(1) Factual situation

Teaching and learning processes show innovative ways of the study process. Studies are organised with theoretical lectures combined with practical activities in laboratories or natural ecosystems. Social partners, employers and graduates are involved in developing the programme learning outcomes which reflect the labour market needs in the region. Distance learning is well developed and attracts students from abroad. However, the teaching staff's focus on chemical environmental quality control systems may decrease the number of students interested in the programme. Cooperation with other departments and teaching staff changes may be useful for future programme development.

(2) Expert judgement/indicator analysis

The study programme teaching level significantly increased compared with the previous evaluation. Cooperation with social partners and research motivated teaching staff would ensure programme growth due to an increase in attractiveness for students.

3.4.2. Evaluation of conditions ensuring access to study for socially vulnerable groups and students with special needs

(1) Factual situation

Local infrastructure and opportunity for "full distance learning" makes studies available for students with special needs, although during the past few years there were no students using this option. Students from vulnerable groups could apply for support from state funds or obtain scholarships from private funds in the region.

(2) Expert judgement/indicator analysis

Access to study for socially vulnerable groups and students with special needs is supported. Student representatives are solving various problems for students: defending their interests, and taking care of students' academic and social well-being even after they graduate. However, the fact that financial benefits available to students with disabilities are not utilised is cause for concern.

3.4.3. Evaluation of the systematic nature of the monitoring of student study progress and feedback to students to promote self-assessment and subsequent planning of study progress (1) Factual situation

The University monitors the study progress of students periodically. Students feedback about the teaching and evaluation methods contributes to changes of teaching methods and improves the assessment system if needed. If the student fails test (exam), it is possible to retake the final assessment of the subject (module) once free of charge.

(2) Expert judgement/indicator analysis

The needs of students are met in the assessment system, but it has some minor cons of appearsement of students. According to information from interviews with the students it has become clear that the assessment system is based on "satisfying" students' expectations of receiving good grades or privileges. The main evidence was that there are possibilities of getting a cumulative mark or having a possibility of delaying the final thesis deadline, etc. The evidence is also based on the high average mark of the final thesis (an average of -9.2) has proven to the expert panel that there is a lack of strict assessment.

3.4.4. Evaluation of employability of graduates and graduate career tracking in the study field.

(1) Factual situation

Graduate career tracking is formally implemented through the Career Tracking Information System (CTIS) karjera.lt tools; however, more importantly is the fact that post-graduates work within the region's "plaikomas". These relations ensure real time study programme monitoring which meets the labour market needs.

(2) Expert judgement/indicator analysis

Employment opportunities are evaluated annually by the LSSPC using surveys and direct contacts with graduates and social partners; this ensures the study programme is "up to date" for the labour market needs.

3.4.5. Evaluation of the implementation of policies to ensure academic integrity, tolerance and non-discrimination

(1) Factual situation

On January 1, 2021, the VU procedure came into force in VUŠA. Cases of violation of the principles of academic integrity, tolerance and non-discrimination are investigated in accordance with the regulations of the VU Central Academic Ethics Commission and the regulations of the Academic Ethics Commission of the VU core academic unit, as well as the regulations of the VU Central Dispute Resolution Commission and the regulations of the Dispute Resolution Commission of the VU core academic unit.

(2) Expert judgement/indicator analysis

During the implementation of the programme, no student applied to the Employee and Student Dispute Resolution Commission. However students are free to submit "anonymous" complaints to the student commission.

3.4.6. Evaluation of the effectiveness of the application of procedures for the submission and examination of appeals and complaints regarding the study process within the field studies (1) Factual situation

The procedure for submitting appeals is defined by the regulations of the Dispute Resolution Commission of the Core Academic Unit. Those who disagree with the examination procedure or assessment may apply in writing to the CAU Board of Appeal within 5 working days from the publication of the assessment.

(2) Expert judgement/indicator analysis

There were no cases of dispute resolution, appeals, academic dishonesty, discrimination, or tolerance violations in the programme which demonstrates student confidence in study programme.

Strengths and weaknesses of this evaluation area:

(1) Strengths:

- 1. Cooperation with local social partners ensuring programme "updates" and reflection of local labour market needs;
- 2. Distance learning possibilities for students from abroad;
- 3. Full time working students" friendly study programme;
- 4. Annual and direct contacts with graduates and social partners makes the study programme "up to date" for labour market needs.

(2) Weaknesses:

1. Attempts to respond to the needs of students and to please them even in the assessment system may affect the quality of studies, so it should be taken carefully...

3.5. TEACHING STAFF

Study field teaching staff shall be evaluated in accordance with the following indicators: 3.5.1. Evaluation of the adequacy of the number, qualification and competence (scientific, didactic, professional) of teaching staff within a field study programme(s) at the HEI in order to achieve the learning outcomes

(1) Factual situation

After the reorganisation of Šiauliai University (ŠU) (from 01/01/2020), a new core academic unit, called the Šiauliai Academy of Vilnius University, started operating at Vilnius University (VU), and the implementation of the study programme is being continued there.

The Self-evaluation report (SER) presents a number of five programme teachers in recent years (Table 10), however, there are 10 permanently working teachers in the institution related to the programme. Distribution of the teaching staff (including visiting professor) by age groups varies from 25% of those under 40 years, 12.5% – within a group of 41–50 years, 37.5% within a group of 50–60 years, and 25% older than 60 years. The composition of the programme teaching staff complies with the formal requirements established by legal documents (Lietuvos Respublikos švietimo, mokslo ir sporto ministro 2020 m. lapkričio 30 d. įsakymu Nr. V-1863 Ekologijos studijų krypties aprašas). The programme teaching staff has a minimum of a doctoral degree and qualification level in ecology and environmental sciences, biology, geography, agronomy, mathematics, education sciences. The programme staff (including visiting teachers) have an upper intermediate (B2) proficiency level of English. Some also speak Russian and/or German. Most subjects are taught using distance teaching/learning methods.

The change of the teaching staff is determined by the number of students in a particular academic year. Teachers are employed in accordance with the regulations for the institution of competitions for the positions of the teaching staff of VU and the organisation of attestation. The teaching staff (except for visiting teaching and research staff) are appointed to primary or higher positions after winning a public competition for a position at the VU. The duration of a teaching contract is five years.

Research and teaching performance is evaluated every five years. During the meeting it was acknowledged that at the end of the year, the discussion with each teacher based on his/her performance results, achievement of his/her professional goals, general competencies is organised. The following criteria are taken into account: the number of published research articles, conference attendance, research supervision, teaching, published teaching materials, participation in the doctoral studies process, student research supervision, expert, organisational and other research activity. Student feedback is also taken into account. Awards for the best teacher and teaching innovation are organised every year.

The teachers also perform research and take part in national and international projects, and participate in doctoral dissertation defence councils. They are members of programme related scientific societies and associations, such as the International Aerobiology Association, the International Society of Biometeorology, the International Ambrosia Society, the American Mathematical Society.

(2) Expert judgement/indicator analysis

Merging of ŠU to VU was beneficial for teachers in terms of broader competence raising opportunities, getting closer connection to VU departments, however, adaptation to a new institutional structure, higher performance requirements is still in the transition phase.

The programme teaching staff is in the range of high qualification and life experience and follows the legal requirements.

Guidance on the teacher's professional development and alignment of his/her activity to the institutional goals is being well organised by annual discussions and research and teaching performance evaluation every five years.

3.5.2. Evaluation of conditions for ensuring teaching staffs' academic mobility (not applicable to studies carried out by HEIs operating under the conditions of exile)

(1) Factual situation

The forms of teacher's mobility include participation in internships, seminars, conferences, training and courses. Funding can be received from sending institutions, Erasmus+ program, EU structural funds, various calls operated by Lithuanian Research Council, EU programs (e.g. COST action). As indicated in Table 13 of SER, 4-9 learning and teaching visits were performed by the programme every year.

(2) Expert judgement/indicator analysis

The variety of mobility opportunities and financial support are adequate.

More teaching visits could be organised, which could help to practice pedagogical/didactic skills in foreign partner universities.

3.5.3. Evaluation of the conditions to improve the competences of the teaching staff

(1) Factual situation

After merging, wider perspectives of competence development opened up. The Special Center for Educational Competencies at VU organises various forms of pedagogical/didactic competence raising in the form of training, seminars, workshops and dissemination of good practice. Special training programme is organised for early career teachers. Awards for the best teacher and teaching innovation are also organised by this Centre.

The programme teachers are raising their competencies during various conferences and seminars both abroad and in Lithuania. The teacher-to-student ratio varied from around 0.7 in 2017–2019 to 1.25 in 2020. In 2020-2021 the ratio decreased to 0.6 (6 teachers and 10 students).

After merging, ŠU teachers experienced changes for higher requirements for a teaching position.

Recommendations from the experts of the previous evaluation to increase a number of research publications in the journals abstracted by the ISI-Web of Science were taken into account by increasing involvement of the teaching staff in international and national research projects, intensifying cooperation with foreign research and study institutions, attracting internal and external funds for updating/purchasing scientific equipment, using various sources of funding for covering the costs of scientific publications, inviting teaching staff from other VU departments into the programme implementation.

(2) Expert judgement/indicator analysis

After merging, wider perspectives of competence development opened up. Awards of the best teacher and teaching innovation are excellent means for motivating higher teaching activity and pedagogical/didactic competence development.

Merging also showed a difference in the requirements in the teacher's position which might also affect social and emotional conditions of teachers.

Substantial structural changes (merging of institutions) always require time for adaptation before effective results are observed.

Strengths and weaknesses of this evaluation area:

(1) Strengths:

- 1. Merging of universities opened many pedagogic/didactic development possibilities from a positive perspective.
- 2. Awards of the best teacher and teaching innovation are positive means for motivating higher teaching activity and pedagogical/didactic competence development.
- 3. Guidance on the teacher's professional development and alignment of his/her activity to the institutional goals is being well organised by annual discussions and research and teaching performance evaluation every five years.

(2) Weaknesses:

- 1. Substantial structural changes (merging of institutions) always require time for adaptation before more effective results are observed.
- 2. Distance learning has many advantages and perspectives, but it can also be an emotionally and socially limiting factor for teachers and students.

3.6. LEARNING FACILITIES AND RESOURCES

Study field learning facilities and resources should be evaluated according to the following criteria:

3.6.1. Evaluation of the suitability and adequacy of the physical, informational and financial resources of the field studies to ensure an effective learning process

(1) Factual situation

Facilities and learning resources are shared with other study programmes, and laboratories serve as experimental and learning facilities. Such sharing might be useful to students to make better connections with teachers; however, it might result in additional work for teachers during the higher load periods (e.g., exams, master thesis preparation period, etc.). This was clearly stated by the students during the visit.

The restructuring of the university has resulted in greater opportunities for students to have free access to scientific databases, modern equipment and VU laboratories in other departments; however currently the opportunities are still undeveloped and at times inaccessible to students. The University's previous evaluation remarks showed an increased cooperation with local enterprises working in the field of study programme.

(2) Expert judgement/indicator analysis

The needs of the students are met thanks to strong cooperation with local social partners and support of the teaching staff. However, opportunities offered through the "maternal" VU should be utilised for student and teachers needs to compensate for the limited local resources.

3.6.2. Evaluation of the planning and upgrading of resources needed to carry out the field studies (1) Factual situation

Depending upon the planned studies and research, the aids and materials required for their implementation are updated annually with an appropriate amount of funding (170 thousand EUR) for research projects; local ŠU K. Butkus Foundation funds were used for field studies during last year. The restructuring of the University (now joint with VU) has created opportunities e.g., 1.361 million euros for the renewal of the university laboratory infrastructure.

(2) Expert judgement/indicator analysis

Belonging to the largest Lithuanian university has created opportunities for the institution to meet the needs of its infrastructure renewal and/or annual meeting needs; however, local foundation may be the way to finance the local region needs.

Strengths and weaknesses of this evaluation area:

(1) Strengths:

- 1. Realistic plans for modernization of laboratory equipment based on state, EU structural and private funding;
- 2. Students have the possibility to use even expensive laboratory equipment for their own research during distance studies;
- 3. Local needs funding possibilities by *K. U. Butkus* foundation.

(2) Weaknesses:

- 1.Adequate laboratory equipment in Šiauliai faculty at the moment according to needs of teaching staff;
- 2. Possibilities for full use of VU laboratory equipment (in other departments of the University) for students are still undeveloped.

3.7. STUDY QUALITY MANAGEMENT AND PUBLIC INFORMATION

Study quality management and publicity shall be evaluated according to the following indicators:

3.7.1. Evaluation of the effectiveness of the internal quality assurance system of the studies

(1) Factual situation

The programme has come under two internal quality assurance systems since the last evaluation following the move to subsume Ŝiauliai Academy into Vilnius University. The SER details the internal quality assurance system of Ŝiauliai Academy, and the five levels applied: University, Institute, Study Programme Committee, Academic Staff, and Students. The Study Information System at the Academy was transferred to Vilnius University at the beginning of 2021 and since then the programme has come under their internal quality assurance system. It is noted that the University applies similar quality assurance processes as that of the Academy. Ŝiauliai Academy cite their Code of Ethics for Employees and Students, and their Rules of Procedure, specifically mentioning: the requirement to share best practice with colleagues and students, respect, continuous improvement, promotion of high-quality work, and student integrity; it is trusted that these will continue to be key considerations under the new system in Vilnius University.

(2) Expert judgement/indicator analysis

Both internal quality assurance systems were presented in detail and indicate thorough systems to ensure the continued enhancement of the programme.

3.7.2. Evaluation of the effectiveness of the involvement of stakeholders (students and other stakeholders) in internal quality assurance

(1) Factual situation

The SER details the multiple ways in which stakeholders are involved in the internal quality assurance systems. Information on the contribution of students and staff is more detailed than that provided by the other stakeholders (social partners) although it is noted that meetings with stakeholders were scheduled at least once per year to discuss the results of the evaluation of the programme. At the meeting with the social partners, they did confirm that they had input into programme activities and that in their opinion the move to Vilnius University was beneficial for all.

(2) Expert judgement/indicator analysis

The internal quality assurance systems at both institutions are comparable to those in other Higher Education organisations. Closer collaborations with the social partners are encouraged particularly with respect to the programme development to ensure that the programme content meets the needs of the future employers. Surveys from the University to all stakeholders about the effectiveness of their involvement in the internal quality assurance system would identify any issues or gaps in the process and highlight where greater input is required.

3.7.3. Evaluation of the collection, use and publication of information on studies, their evaluation and improvement processes and outcomes

(1) Factual situation

The Communication and Marketing Department is highlighted in the SER as responsible for dissemination of information externally. Activities range from high school visits, open days through to study quality days; these offer an opportunity for a detailed forum with the stakeholders to voice their expectations and wishes for the development of the programme. Current information about the programme is available on the University and the Institute of Regional Development webpages.

(2) Expert judgement/indicator analysis

Information about the programme is available on the institution webpages; however, it is less clear where information on the evaluation and improvement of the programme following stakeholder input is published – whether internally and/or externally.

3.7.4. Evaluation of the opinion of the field students (collected in the ways and by the means chosen by the SKVC or the HEI) about the quality of the studies at the HEI

(1) Factual situation

The predominant way of involving students in the internal quality assurance system is through surveys, with some students stating in the meeting that the only way to feed back on the programme is through the evaluation of courses following their completion. However, the SER states that students are active in expressing their wishes during their courses and make suggestions throughout the teaching periods. One suggestion implemented was to reduce the weighting of the exam; other outcomes include the borrowing of equipment to use at home for research for their thesis and ensuring safe access to the laboratories during Covid.

Students in the meeting were positive about the move to Vilnius University and cited the greater range of opportunities available to being in a larger institution. Students were also positive about the quality of the programme.

(2) Expert judgement/indicator analysis

The programme has only been running within Vilnius University for 11 months (at the time of the meeting) and the students who contributed spoke positively about their experiences to date. Therefore, the evidence suggests that students are satisfied with the quality of their studies.

Strengths and weaknesses of this evaluation area:

(1) Strengths:

1. The development of distance learning (and the advertisement of it) makes the study programme interesting, particularly for students from abroad. The easily accessible second cycle (Master degree) diploma based on distance learning also reflects local labour market needs as well.

(2) Weaknesses:

- 1. The SER template provided by SKVC has four sections for Study Quality Management and Public Information; the SER submitted only provides information related to two of them the system itself and the input of students. It would be helpful if Vilnius University followed the headings provided in the template in future SERs so that the information requested is explicit.
- 2. Clarity is required as to where the outcomes of the evaluation of the programme are published, and whether this is internal and/or external facing.

IV. EXAMPLES OF EXCELLENCE

Core definition: Excellence means exhibiting exceptional characteristics that are, implicitly, not achievable by all.

If, according to the expert panel, there are no such exceptional characteristics demonstrated by the HEI in this particular study field, this section should be skipped / left empty.

- 1. The study process is modern and up-to-date students have the opportunity to study remotely. The methods of knowledge tests (colloquia, exams) guarantee academic integrity.
- 2. High level of environmental awareness of the students.

V. RECOMMENDATIONS

Evaluation Area	Recommendations for the Evaluation Area (study cycle)
Intended and achieved learning outcomes and curriculum	Future SERs should follow the template explicitly and include key information within the relevant sections, rather than provide said information in an appendix. Social partners should be consulted for input into thesis topics to ensure the relevance and appropriateness of the subject matter for the workplace.
Links between science (art) and studies	Publication activity in WoS registered journals of most teachers should be increased substantially.
Student admission and support	Due to the developed distance learning process, it is proposed to talk more widely and promote the study programme at the international level. This could make a significant contribution to the increase in the number of students entering and studying
Teaching and learning, student performance and graduate employment	An active development or strategy towards student recruitment has to be developed.
Teaching staff	More intensive use of the mobility programs could help to develop pedagogical/didactic skills especially at foreign partner universities.
Learning facilities and resources	Infrastructural conditions (laboratory equipment) both for research and education at Šiauliai faculty should be improved.
Study quality management and public information	Both internal quality assurance systems were presented in detail and indicate thorough systems to ensure the continued enhancement of the programme.

VI. SUMMARY

Main positive and negative quality aspects of each evaluation area of the ecology study field at Vilnius University.

The integration of SU to VU has enhanced the opportunities and services of both teachers' and student's support. Substantial structural changes require time for adaptation before effective results are observed. The students appreciated the flexibility of the study process, especially the quality of distance learning. However, the programme has low numbers of students and would benefit from a more active development policy or strategy towards student recruitment. Scientific advancement of the staff would benefit from a well specified research activity preferably focussed on particular fields that fit best to their existing knowledge and competences. Tight cooperation with scientists in Vilnius may broaden perspectives. Thesis quality can be improved by focussing on more hypothesis centred research and their technical appearance needs more care. The mapping matrices of subjects, study results and methods demonstrate the compatibility of the aims, outcomes, teaching, learning and assessment methods to the study field and cycle. Students have various mobility opportunities to study abroad though they appear reluctant to use these. More active use of mobility programs by the staff members could help to increase pedagogical/didactic skills. Closer collaborations with the social partners are encouraged particularly with respect to the programme development to ensure that the programme content meets the needs of the future employers.

Expert panel chairperson signature:

Prof. Dr Judit Padisák (panel chairperson), academic;