



CENTRE FOR QUALITY ASSESSMENT IN HIGHER EDUCATION

EVALUATION REPORT
STUDY FIELD OF FORESTRY
AT VYTAUTAS MAGNUS UNIVERSITY

Expert panel:

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2. **Prof. dr. Vilis Brukas**, *member of academic community;*
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4. **Dr. Rimvydas Juškaitis**, *representative of social partners;*
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Study Field Data*

Title of the study programme	Forestry
State code	6121IX008
Type of studies	University studies
Cycle of studies	First cycle (Bachelor's studies)
Mode of study and duration (in years)	Full-time (4 years); Part-time (6 years)
Credit volume	240
Qualification degree and (or) professional qualification	Bachelor in Agricultural Sciences
Language of instruction	Lithuanian
Minimum education required	Secondary education
Registration date of the study programme	1997

* if there are joint / two-fields / interdisciplinary study programmes in the study field, please designate it in the foot-note

Title of the study programme	Forestry	Wildlife Resources and Management
State code	6211IX009	6211IX007
Type of studies	University studies	University studies
Cycle of studies	Second cycle (Master's studies)	Second cycle (Master's studies)
Mode of study and duration (in years)	Full-time (2 years); Part time (3 years)	Part time (3 years)
Credit volume	120	120
Qualification degree and (or) professional qualification	Master's degree in Agricultural Sciences	Master's degree in Agricultural Sciences
Language of instruction	Lithuanian , English	Lithuanian, English
Minimum education required	Bachelor's degree	Bachelor's degree
Registration date of the study programme	1997	2012

* if there are joint / two-fields / interdisciplinary study programmes in the study field, please designate it in the foot-note

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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 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 remote visit to the HEI was organized on the 25th of May, 2022.

1. **Prof. dr. Bo Dahlin**, *professor at University of Helsinki, (Finland)*;
2. **Prof. dr. Vilis Brukas**, *professor at Swedish University of Agricultural Sciences, (Sweden)*;
3. **Prof. dr. Turčáni Marek**, *professor at Czech University of Life Sciences, Prague, (Czech Republic)*;
4. **Dr. Rimvydas Juškaitis**, *Natural Research Center Institute of Ecology, (Lithuania)*;
5. **Ms. Karolina Limanovskaja**, *student at Vilnius University Life Sciences Center, (Lithuania.)*

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.	
2.	
...	

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

Vytautas Magnus University (VMU) is a University which provides degree studies of all three cycles, i.e., Bachelor, Master and Doctoral studies, which cover a broad spectrum of study fields ranging from Humanities, Social Sciences and Arts to the fundamental, applied, interdisciplinary Bio-economics, Biosystems Engineering, Natural and Agricultural Sciences.

Since 1995, the former integrated study program Forestry has been implemented at the University in the first and second cycle. Since 2012, the second cycle study program Wildlife Resources and Management has been implemented in the study field of Forestry.

VMU is the only University in Lithuania providing Master and Doctoral studies in Forestry.

This evaluation only deals with the first and second cycle (BSc and MSc) Forestry education.

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II. GENERAL ASSESSMENT

Forestry field study and **first cycle** at **Vytautas Magnus University (VMU)** is given **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	4
2.	Links between science (art) and studies	3
3.	Student admission and support	3
4.	Teaching and learning, student performance and graduate employment	3
5.	Teaching staff	4
6.	Learning facilities and resources	4
7.	Study quality management and public information	3
	Total:	24

*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.

Forestry field study and **second cycle** at **Vytautas Magnus University (VMU)** is given **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	4
2.	Links between science (art) and studies	3
3.	Student admission and support	3
4.	Teaching and learning, student performance and graduate employment	3
5.	Teaching staff	4
6.	Learning facilities and resources	4
7.	Study quality management and public information	3
	Total:	24

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

One third of Lithuania is covered by forest and some 10,000 people are working in the forest sector. It is a net provider of income to Lithuania and as such important for the national economy. There has been an over-supply of educated foresters, but the recent decline in the number of students and projected retirements will turn that into a deficit by the end of this decade. However, recent changes in intake requirements, as well as forestry being seen in less favourable light amongst youth, have decreased the number of new first cycle students. This will mean that also the number of second cycle students will eventually decrease. HEI is considering facilitating for professional Bachelors and students from other study fields for the second cycle studies.

Both VMU and KMAIK provide education in forestry on Bachelor level, but only VMU provide Master level education. Graduates of both cycles can work at various positions at forest companies as well as within the public sector, e.g. municipalities, government and universities.

(2) Expert judgement/indicator analysis

There is and will be a societal and industrial demand for educated foresters. VMU is fulfilling that demand and is the only institution in Lithuania to provide highest education (Master and PhD) in forestry. The declining number of admitted first cycle students may jeopardise the future supply of qualified foresters. It is a wise step to widen the base for the second cycle admissions.

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

The mission of VMU is to “to create liberal learning conditions for an individual, develop partnerships, take active part in the life of Lithuania, advance the future of the country, and contribute to the global cultural and academic development.”

The aims of the Faculty education-wise are: “to satisfy the needs of agriculture, forestry and water management industries, their infrastructure and the needs of related public institutions and communities, ...”, also the needs of professionals ... ?”.

The aims and learning outcomes of the Forestry SPs are chosen to match with the missions and aims of the faculty as well as of the VMU.

(2) Expert judgement/indicator analysis

The team assess that the Forestry faculty and its study programmes as well as its research and other activities, conforms well to VMU's mission and objectives. Furthermore, the curriculum design is well in line with the missions and aims.

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

(1) Factual situation

The first and second cycle study programmes are performed in compliance Description of Study Cycles (Order No. V-1012 of the Minister of Education and Science of the Republic of Lithuania, 2015) and the Description of General Requirements for the Provision of Studies (Order No. V-1168 of the Minister of Education and Science of the Republic of Lithuania, 2016).

Table No. 1. Compliance of the program Forestry with the general requirements for first cycle study programmes.

Criteria	Legal requirements	In the Programme
Scope of the programme in ECTS	180, 210 or 240 ECTS	240 ECTS
ECTS for the study field	No less than 120 ECTS	182 ECTS
ECTS for studies specified by University or optional studies	No more than 120 ECTS	48 ECTS
ECTS for internship	No less than 15 ECTS	15 ECTS
ECTS for final thesis (project)	No less than 15 ECTS	15 ECTS
Contact hours (including distance contact hours)	No less than 20 % of learning	38%

Table No. 2. Compliance of the programs Forestry and Wildlife Resources and Management with general requirements for second cycle study programmes.

Criteria	Legal requirements	In the Programmes
Scope of the programme in ECTS	90 or 120 ECTS	120 ECTS
ECTS for the study field	No less than 60 ECTS	114 -120 ECTS
ECTS for studies specified by University or optional studies	No more than 30 ECTS	30 ECTS
ECTS for final thesis (project)	No less than 30 ECTS	30 ECTS
Contact hours (including distance contact hours)	No less than 10 %	29%

The requirement for first cycle students is that they should be able to collect and analyse data, to solve professional problems and for second cycle students that the independently can conduct forestry research to make forestry decisions.

The study programs are harmonized with the Professional Standards descriptions of qualifications by the Lithuanian Qualifications Framework level VI and VII.

(2) Expert judgement/indicator analysis

The VMU Forestry SPs does comply with the legal requirements. The contact hours are well above the requirement, which seems reasonable as many of the subjects contain parts of practical skill which require guidance of qualified teachers. It is also higher for the 1st cycle when the professional skills have to be developed. The curriculum design corresponds with the requirements set by the Professional Standard,

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

Below the number of semesters are according to full time studies.

The 1st cycle starts with general courses and there is only 1 specific forestry course (4 ECTS) during the first semester. The first 4 semesters each include 8 ECTS of study courses of Group A and B, and furthermore, the first two semesters also require 6 ECTS of study in foreign language. The studies focus more on forest subjects after the first semester. Semesters 6 and 7 also have "Practice of professional activity" (10 and 5 ECTS, respectively).

For 2nd cycle students the first 2 semesters are common while semester 3 the students choose from elective courses and semester 4 is fully dedicated to the finalisation of the master thesis.

In the studies different kinds of methods are implemented: e.g., reports, case study, problem-solving, demonstration, project preparation and presentation. Also Problem Based Learning and role-play are used. Many courses are spending time in the forest. The second cycle has a more theoretical approach as it is more advanced and specialised into a few subjects.

The desired learning outcomes in knowledge and its application, research skills, special abilities and social and personal abilities are defined and incorporated in the courses. They have an increasing and cumulative level for both cycles.

There is a plan to have forestry courses in English, but they will be optional study courses. Some parts of the current courses are taught in English (Forest growth and yield) and guest lectures in English are given also in other courses. By doing exchange abroad, students have the opportunity to take courses in English.

(2) Expert judgement/indicator analysis

The team assesses that the compatibility of aims, learning outcomes, teaching/learning and assessment methods of the field and cycle study programmes is of a compelling level. The study aims, and teaching/learning methods, seem well balanced. However, even if this is a theoretical education it is important for the students to spend time in the forest. We have learned from students that some would like that more attention should be put on providing practical professional skills, in terms of both extent and progression. This is for first cycle students. We assume that this is mainly due to the last two years of Corona restrictions, which has constrained the possibilities for "live" teaching and field courses. But the responsible should be aware of this and provide extra study possibilities. Otherwise, those years students may never attain the required skills.

We highly encourage the Faculty to make forestry courses in English. It will give the students a proficiency of the terminology, which they will have use of while reading scientific articles (e.g. for their thesis). It may also attract foreign exchange students.

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 1st cycle includes 36 courses (167 ECTS) of courses of study field. Furthermore, there is 15 ECTS of final thesis. There are also other courses (like meteorology) that is related to the study field.

The 2nd cycle is divided into 10 mandatory courses (60 ECTS) during the first two semesters and 5 elective courses (30 ECTS) during the third semester.

As mentioned above (3.1.4) there is an awareness to develop different skills and abilities incrementally during the both cycles.

(2) Expert judgement/indicator analysis

The number of courses is quite impressive. The courses cover almost every possible aspect of forestry and ensure a consistent development of competences. It is of vital importance that the 1st cycle students get a broad understanding of forests and their management so that when they specialise as 2nd cycle students, they still can relate to other parts of the field. However, there is also a risk that the many short courses take away the opportunity to specialize deep into a certain topic.

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

For the first cycle there are 48 ECTS electable, plus 15 ECTS for the thesis. However, within the field of study there are only 16 ECTS (divided into 4 courses of each 4 ECTS) electable. There are 13 electable courses to choose from. This means that all 1st cycle students will have 151 ECTS from the study field in common.

The 2nd cycle students have the 3rd semester filled with elective courses, which of course should be in alignment with their choice of subject for the thesis. There are 4 courses of 6 ECTS to be chosen from the study field (16 courses available) and 1 more course (not directly in forestry) of 6 ECTS (e.g., Scientific writing, Innovations, Consulting).

(2) Expert judgement/indicator analysis

With more than 90% of the field study courses mandatory, the possibility for 1st cycle students to personalize the structure of their study programme is limited. The second cycle is more specialized, with 3rd semester only with elective courses and with a scientific approach for the final thesis. Compared to other forestry educations (e.g., in Finland and Sweden) the proportion of common courses are larger in Lithuania, both for 1st and 2nd cycle students. This has both positive and negative implications. It means that all students will get a very broad and holistic knowledge of all fields of forestry. It also means that for the most the number of students in courses will be large. The negative part is that the students have less opportunity to tailor their study programme according to their interest.

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

(1) Factual situation

Students have to fulfil the compulsory study program before they can defend their theses. The thesis is normally based on the student's research. The final thesis is initially evaluated by a

committee consisting of three teachers and by reviewers. The defence takes place before the Final Thesis Assessment Committee which consists of five members and a chairperson. For the 2nd cycle thesis, social partners, and other institution researchers, are represented.

The committee evaluates the thesis and the defence on basis of several criteria, e.g. the quality of the thesis, its presentation, how the student answer questions during the defence and the reviewers' assessment.

During the years 2019 – 2021 there were 148 BSc theses and 100 MSc theses in forestry presented.

The topics of the final theses are related to ongoing research projects, and they are most often in cooperation with SE State Forest Enterprise or private estates. Many of the part-time students make their thesis at their workplace. Social partners regularly present lists of relevant final thesis topics.

(2) Expert judgement/indicator analysis

The list of theses for both cycles cover a broad field within the forestry framework. The topics of the theses are very often related to research projects and social partners. This provides a strength of scientific support and practical relevance. The evaluation and defence processes are quite thorough and should ensure a fair and just assessment.

Just by browsing the titles it can be concluded that many of the 1st cycle theses are case studies and some are literature studies. The 2nd cycle studies include data collection and have more scientific topics than the 1st cycles theses, which of course are what should be expected.

Strengths and weaknesses of this evaluation area:

(1) Strengths:

1. Education is well aligned with the missions, aims and requirements and fulfils all regulations.
2. The list of subjects of courses are almost exhaustive.
3. Different forms of teaching and examination methodology are used.
4. The thesis evaluation process is very thorough.
5. Theses' topics are related to ongoing research and/or social partners.

(2) Weaknesses:

There were no weaknesses.

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

Forestry at VMU is participating in several international research projects as well as domestic ones. Domestically Ministries and agencies are commissioning a substantial part of the projects. During 2018 - 2020 some EUR 320' came from international projects. But while the international funding has been stable, the domestic funding increased from EUR 180' to EUR

331' during the same time. An evaluation of the agriculture and forestry research found that the forestry research was ca. 3 times more efficient than agriculture research (publications per position).

Forestry at VMU has been influenced by several administrative changes last years. Now, the faculty is a part of VMU, which is ranked at 300-350 positions in agriculture and forestry worldwide, which indicates a relatively good level of this area. To be a part of a big University is a serious challenge and also a big chance for wider cooperation in research and science among VMU faculties. On the other hand, it is possible to see the effect of hidden smaller forestry among other areas and the result with all other reasons described below is probably a declining number of students. Comparatively high entrance score for candidates (5.4 for universities, but 4.3 for colleges like KMAIK) is possible a problem for absolvents of rural schools, low salaries in forestry, ongoing reform of the State Forest Enterprise (staff reductions), negative public opinion about foresters are the main problems for declining number of students. The top management of faculty is (too) optimistic and this optimistic view is probably based on the internal system of University funding. To keep the number of students, bring high quality candidates for PhD and post-docs, and widen the scope of forestry (and wood processing) would be big challenges in the next couple years.

There are minimum qualification requirements for teachers and scientific staff of VMU, and they follow minimum qualification requirements for teachers and scientific staff approved by the Lithuanian Scientific Council. For example, a professor of VMU must publish 5 articles (out of them, at least 4 in WoS journals), associate professor (docent) – 3 articles (at least 2 in WoS) in a 5-year period (not necessarily as the first author).

The results of the annual evaluation of R&D activities of VMU carried out by the Research Council of Lithuania (LRC) show that the Faculty's researchers working in the field of Forest Sciences fulfil the requests. There is high number of research papers in international scientific journals with an impact factor. The staff produces also research papers among the top 10% of the most highly cited papers in the world, scientific monographs or parts of monographs. These publications are related to study programs. The VMU Forestry in the annual R&D evaluation by the Research Council of Lithuania reaches almost 10 points per FTE. R&D projects and contracts of faculty in 2018-2020 evaluated as R&D activities during the annual evaluation of R&D activities of science and higher education institutions by the Research Council of Lithuania shows increasing trend, they are not so high, however. There are several international and national research projects, which serve as a basement to keep the track with current trends. In 2021, Students' Science Club was re-established to involve students in scientific and experiential activities with the help of mentor scientists from the first year of their studies, to develop their skills in conducting research. At the same time, the Centre for Business and Social Partnership was also reorganized to increase cooperation with business and social partners. There is strong effort to merge research and development and educational activities. To involve the students to research activities, the faculty is funding such activities not only from project money, but also from its own budget. There is act in preparation to highly increase cooperation to commercial partners. The plan to keep the funding for research is not too ambitious, the plan is promising to have stable funding for research, however. Generally, the faculty reaches the highest rating when comparing research and study institutions (Vytautas Magnus University and Lithuanian Research Centre for Agriculture and Forestry) working in the field of forest sciences. Comparison to the foreign institutions says average performance.

(2) Expert judgement/indicator analysis

Comments and recommendations for scientific performance and also the link between science and teaching is the same for the first and also the second cycles of the study. Generally, the scientific projects and also publications are more-less connected to the field of study in both cycles.

To analyse the situation and prepare a strategy to eliminate the decline in number of students. It is still possible that decline in the number of students will continue resulting in less teaching and an increasing number of researchers. It is a challenge but also a necessity to increase income from research and science to keep staff in sufficient numbers.

The top management must adapt the faculty to this new situation, as the staff is now more-less separated to lecturers and researchers. It would be nice to keep balance and partially include researchers in education and lecturers to research and science as teachers must do research and publish in accordance with minimum qualification requirements for teachers and scientific staff of VMU.

Important part of forestry should be wood processing, as there is a strong wood processing industry and the importance of wood as a sustainable source of natural material will increase in Lithuania. There must be a clear strategy if and how the wood processing will be included to study programs and/or new programs for wood processing, furniture production, wooden houses industry and bioeconomy. This must be subsequently supported by scientific activities.

It is necessary to discuss publishing in semi-predatory publishers (like MDPI and others) to the faculty scientific community and explain potential risks. The Research Council of Lithuania evaluates scientific publications of all HEI and research institutes every year, and this Council judges about suitability and quality of journals. It is highly probable that MDPI will be a hot topic in the near future. To prioritise high quality forestry journals with long-term tradition in forestry sciences.

The funds for the scientific project are stable in the presented period. Majority of the projects are ending by 2021. There is a need to keep increasing the trend for project funding in connection to decreasing the number of students. It would be important to also plan funding for research and science from a University budget in the long-term perspective.

There are plans to improve all activities in research and science after administrative changes. It is presented in an optimistic way, the situation is quite unclear, however. The limited amount of money and 9.5 researcher's positions may be a short-term solution.

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 faculty has a good basement in scientific projects and there are clear strategies to involve students to work on projects. More than one third of final theses for both cycles are involved with research projects of their scientific advisors. The teaching staff is involved in international organisations and networks (IUFRO, ICPP IM, IAVS, eLTER) which brings the possibility to be in touch with the newest knowledge and concepts.

The teachers of the faculty are active scientists: participants in international and national scientific projects, such programs as HORIZON, INTERREG, ERA-NET Sumforest, LIFE, as well

as COST activities where new proposals are also elaborated. The staff members also participate at the activities of Lithuanian Academy of Sciences; members of various expert groups under the Ministry of Environment. The staff members are also working at editorial boards of international journals. This is quite exceptional however. For example, Prof. Dr. G. Brazaitis is subject editor of European Journal of Forest Research; professors G. Brazaitis, E. Petrauskas, V. Marozas, G. Mozgeris are members of the editorial board of the international scientific journal Baltic Forestry; Prof. G. Brazaitis is a deputy coordinator of the International Union of Forest Research Organisations (IUFRO) Working Group 1.01.12 “Silviculture and Ungulates”, Dr. E. Makrickiene is a deputy coordinator of the IUFRO Working Group “Research on Forest Policy and Governance in the Baltic and Central European Countries”; Prof. V. Marozas is a member of The International Association for Vegetation Science (IAVS); P., and others. The faculty is well equipped with high-tech equipment that is needed to keep the track with the newest development in science.

(2) Expert judgement/indicator analysis

The content of study generally reflects the newest trends in the research and the latest development in both cycles of study. There are some comments and recommendations for improvement.

It is highly needed to bring young scientists from outer institutions for medium-term stays. They may bring new ideas, new skills, new cultural inputs and may also enhance the international dimension of the faculty. There is a necessity to bring a new scientific working style and culture and let the local and foreign scientists live together. It is also necessary to intensify scientific training, stays at “western” institutions as often as possible.

It is quite crucial to extend publication activities into the top journals - not only as an individual co-author in a big foreign team, but a VMU research team as a leading group. Optimally, the staff may publish 1.5 papers per person annually and it is needed to have higher requests for PhD students (e.g. make it possible to defend PhD thesis as a set of several WOS papers).

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

Forestry program students often participate in the research project of their scientific advisor for the final thesis, test scientific ideas, and prepare theses based on the part of their research. In this way, over the last five years, about one-third of the first and second cycle students in the Forestry area have participated in the Faculty’s research projects, conducting research in the Faculty’s laboratories or in the open air using mobile equipment. For instance, during the period of past 3 years, most the master students in the field of forest genetics took part in ongoing research projects. The student research is published in the annual students’ scientific conference “Young Scientist”. Second cycle students are obliged to participate in the conference with a presentation, before they can defend their thesis.

Students submit proposals for the Research Council of Lithuania to promote their scientific activities and some of them are successful.

(2) Expert judgement/indicator analysis

Science apparently will be more important from the point of view of funding, national and international cooperation. Highly important is to extend the performance of pre-graduate

students in research and science processes and connect the pre-gradual students to PhD ones during their study on joint projects.

Despite the fact there are possibilities for students to be the members of scientific teams inside the faculty, only one third of students make their graduation works on the basis of faculty projects/data. It would be excellent if the majority of students will be included in faculty scientific work. Scientific structure of faculty may be established on the base of cooperation of employees, PhD students and pre-gradual students. The scientific projects may be fundamental for funding the pre-gradual and PhD students and students may be the engine of faculty science. This may be also attractive to candidates for a study and increase interest to study at faculty.

Strengths and weaknesses of this evaluation area:

(1) Strengths:

1. Faculty is the part of a big University with long-term financial stability, wide possibilities for cooperation that may result in higher project and publication activities.
2. PhD program which may bring brilliant scientists on board, if excellent candidates are attracted, and it can stimulate and inspire the 2nd cycle students if cooperation is done (courses, projects etc.).

(2) Weaknesses:

1. Rapidly decreasing number of students and simultaneously not rapid increase of scientific projects.
2. Little systematic international cooperation resulting in limited involvement in high quality EU scientific structures (e.g. COST projects which are the birthplace of European projects).
3. Little scientific cooperation with other faculties at VMU, which are more advanced in the scientific field.
4. Not sufficient openness to candidates for study /BSc. graduates outside forestry, what may result in living in a forestry bubble.

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

Admission follows the standard state formula that was established in 1998. Students who have secondary or lower than secondary education may be admitted into first cycle programs. The minimum admission score (for first cycle) has increased during the last years which has had a significant impact on the number of students admitted to first cycle studies. Students who do well in their high school exams may study at VMU with a scholarship.

To enter second cycle studies there are two possibilities: 1. Completed 1st cycle in Forestry at University, and 2. Completed College professional 1st cycle in Forestry and have taken supplementary courses (40 ECTS).

(2) Expert judgement/indicator analysis

In the SER it is speculated that students coming from the rural areas, who would be more interested in studying forestry, have less opportunities to take extra classes for preparing for

the state exams. That could explain why forestry is relatively more affected by the higher admission requirements. The admission number was 81 in 2015 and 25 in 2017, a decline with almost 70%. But the success rate of students (graduates divided by admitted) increased from 62% to 88%. If this is due to higher minimum admission score (the weakest students may be more prone to quit their studies) or if a smaller student group is positive for the studies, is hard to say.

The University, together with the whole forest sector, has to tackle the problem with declining admission rates.

Only students with a BSc in forestry (and professional foresters must take 40 credits supplementary) are admitted to 2nd cycle studies. This makes the education a very closed bubble of foresters. We encourage the effort discussed in SER to open the possibilities for admission to students with another background than forestry. It may also widen the perspectives of the Master studies.

The admission requirements to first and second cycle SP are quite restrictive and poorly match today's situation with a sharp decline in the number of admitted students. There is discussion at the Faculty to widen admission to second cycle outside the forestry (but with complementary studies), which we highly encourage.

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

There is a document (VMU Description of the Procedure for Recognition of Learning Outcomes) which regulates how partial learning outcomes from outside the VMU (domestic as well as international) should be evaluated. This is done in a decentralized way, so each faculty take care of this. During 2019 and 2020, 11 first cycle students with studies at foreign universities were validated and 3 second cycle students.

Also competence acquired by work, internships, courses etc. can be recognised. It must be applied for and is validated on an individual basis and it is regulated by a document (VMU Study Regulations; Description of the Procedure for Assessment and Recognition of Competences Acquired Through Non-Formal and Informal Education). No requests for informal learning outcome validation have been made during the last 3 years.

There is no report of incoming foreign students to Forestry SP (both cycles) during the last three years.

(2) Expert judgement/indicator analysis

The procedures of validating foreign qualifications, partial studies and informal competences are well documented and regulated. The foreign exchange more or less stopped during the last two years, due to the pandemic. It was quite active before and hopefully start again, now when the borders are open.

As there are no courses given in English, incoming exchange students would have to master Lithuanian language to participate in the studies. This is prohibitive of having visiting students. There are intensive courses (BOVA network) given in Lithuania and neighbouring countries, where the students have the chance to meet international colleagues.

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

(1) Factual situation

Academic mobility opportunities are provided by the University through the ERASMUS+ program. In the year 2018-2019 10 1st cycle students applied for studies or internships abroad. Last year (2020-2021) there was no application. Six 2nd cycle students have received support for study trips and internships abroad during the previous three years. Faculty is also a partner of the Euroforester program. Before the pandemic it used to be 1-3 students per year joining the Euroforester program. BOVA university network, to which VMU belongs, organises intensive courses.

(2) Expert judgement/indicator analysis

Mobility was quite common before the pandemic shut down all activities. However, students are reluctant to take the exchange opportunities due to the fact that most students have jobs that they cannot leave. Shorter study trips or conference participation do occur. We feel that it is important for students to leave Lithuania in order to get a broader perspective and this should be encouraged by the HEI.

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

Academic support and information come by different sources: Moodle and the student portal are digital channels, but regular consultations with teachers are common as well. Teachers also organise consultations to help students that are struggling. Surveys are conducted to collect feedback and to better the courses and study program. Several levels of the University also use Facebook for information.

Students with financial difficulties can get postponement of payment of tuition fees, if they apply for it. Social support is coordinated by VMU Student Affairs Department. It manages dormitories, scholarships and release from tuition fees. The student council also plays an active role in supporting the students socially.

If needed, the VMU Psychology Clinic provides free counselling. Students with disabilities are assisted by Disability Coordinator.

(2) Expert judgement/indicator analysis

The amount of financial support provided for high achieving students is inadequate. Students are forced to work to support their subsistence. Last study semester students are often highly over-worked. The information and support otherwise are well organised.

3.3.5 Evaluation of the sufficiency of study information and student counselling

(1) Factual situation

During the introductory week for new students, various aspects of the University, facilities, Faculty, staff and studies are presented, as well as opportunities to study abroad.

The teachers are obliged to do a certain time of students counselling. Study information is mostly distributed through the Moodle platform and personalised e-mail boxes that the University provides. Student Affairs Department also provides counselling.

(2) Expert judgement/indicator analysis

There is quite much different counselling available for the students. So the amount of counselling should be sufficient. However, students report that some teachers are reluctant to make changes in their teaching methods. Data collected from surveys that are meant to be used to better the study program is not used sufficiently. Students mention that teachers are reluctant to take students' opinions into consideration and that there are little changes to the study program.

Strengths and weaknesses of this evaluation area:

(1) Strengths:

1. Well established admission criteria for both cycle study programs.
2. Well-regulated criteria for validating qualifications outside of University.
3. Options for foreign exchange is available.
4. There is a thorough introduction for new students.
5. Many types of counselling are available.

(2) Weaknesses:

1. Only students with a BSc in Forestry are admitted to 2nd cycle studies.
2. Low academic mobility of students.
3. English is not incorporated well enough in the study field.
4. No influx of foreign students.
5. Students complain that their feedback on courses is not taken in consideration. We highly recommend that feedback is followed-up.

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

VMU teachers apply a variety of teaching and learning methods, such as lectures, seminars, laboratory works, practical tasks and internships, including individual and group assignments as well as teaching on campus and in distance mode. Both formative and cumulative assessment are used on a regular basis following the stipulations in VMU Study Regulations and in the Description of the Procedure for Organising Distance and Blended Studies. The final examination marks weigh between 30 to 60% in the final course grade, which shows the big emphasis being placed on intermediate assessments such as midterm exams, tests and homework. This facilitates monitoring of students' performance over the semester and encourages active participation in study programmes.

Two major trends must have a major influence on the teaching and learning process. First, forestry programmes in both first and second cycle faced a major decline in the number of students. Second, full-time SPs were undergoing transition from purely campus-based to blended learning with a substantial share of distance-based studies. The transition was likely stipulated by a big share of students having full-time or part time jobs; and the Covid-19 pandemic. SER and interviews did not provide clear evidence for the intended proportions of conducting campus-based versus distance studies in post-corona years; and how do these

important trends affect the actual contact hours between students and teachers and the quality of studies at large.

A substantial share (more than half) graduates from forestry first cycle studies pursue VMU master programmes in forestry or wildlife management. Annually some 3-5 people earn doctoral degrees, the third cycle studies at the faculty.

Field practice is widely integrated into the program. Unfortunately, due to COVID, current students missed a good portion of their assigned practice courses

(2) Expert judgement/indicator analysis

The variety of applied methods of teaching and assessment constitute an important precondition to achieve the intended learning outcomes, respecting the didactic particularities of different disciplines of the analysed SP. On the other hand, the decline in number (and presumably in academic capacity) of students as well as the transition from campus-based to blended learning with substantial share of distance-based studies must have been a major pedagogical challenge at both first and second cycle programmes. Increased use of e-learning increases flexibility and may open for pedagogic innovations. On the other hand, the experience of the pandemic revealed on a broad scale that e-learning has not been received positively by large cohorts of students, in Europe and elsewhere. Pedagogic and administrative adaptations to accommodate or to counter the aforementioned trends require more attention in the coming years for first and second cycle forestry programmes at VMU.

Due to declining numbers of students, higher forestry education in Lithuania currently faces a decisive time point. The evaluation group considers that forestry and forest industries constitute a major economic sector that increasingly faces shortage of specialists. There is an urgent need to increase the number of admitted and graduating students. Following the merger in 2018, adding education from the “land use sectors” such as forestry presents a major opportunity for diversifying and strengthening the educational profile of VMU as a whole.

The merger between universities led to major structural changes of study administration, the structures still need to be stabilised. There is a clear trend of centralising the educational administration which entails a risk for insufficient attention to and resources for solving programme-specific issues, such as the decline of intake for forestry SP. The merger between universities offers, among other things, increased opportunities for interdisciplinary collaboration in science and education, but additional measures might be needed to spur such collaboration.

The interviews with students revealed potential for streamlining the set-up of SP to avoid too big fluctuation in intensity of studies, in particular, avoiding student overload when preparing bachelor thesis in the first cycle programme.

It is important for the Faculty to observe that some students did not fulfil the required practice, due to the pandemic. Hopefully that can be repaired in the close future. The practical skills are of vital importance for forestry students.

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

(1) Factual situation

VMU has in place recently (2021) adopted a disability policy titled University of Inclusive Opportunities and students with disabilities are advised by the Disability Coordinator. Students from socially vulnerable groups (orphans, students with disabilities, etc.) get

scholarships and tuition discounts and are provided opportunities to study according to individual study plans. There are lifts and facilities at the campus to facilitate for disabled. Also parking and dormitory are available.

(2) Expert judgement/indicator analysis

At large, VMU has appropriate policies and tools to support students from socially vulnerable groups and students with special needs. However, SER does not provide evidence to what degree these tools are operationalised at faculty and programme level. This especially pertains to the physical infrastructure, having in mind that the campus of the Agriculture Academy is located far away from the central premises of the University. In future self-evaluations, it is advisable to provide more concrete examples of adopted measures, with direct pertinence to the analysed study programme and making a clear distinction about the measures at University versus the Faculty or programme level. It is not mentioned if there have been any cases of disabled students, and if so, how the forest visits were organised.

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

VMU has clear routines for systematic monitoring of students' study progress, regulated by appropriate documents, VMU Study Regulations and the Description of the Procedure for Student Learning Achievement Monitoring and Assistance. The monitoring spans analyses of student enrolment and study progress, reasons for students' lacking participation in exams, analyses of grades received and measures to prevent student's failure.

Academic progress of each student is tracked in digital databases (study information system Studis and Moodle), including students' participation and performance on exams. Students receive feedback on most tasks through the learning platform Moodle. According to SER, the monitoring of the study progress is conducted regularly, and students are encouraged for active self-monitoring.

(2) Expert judgement/indicator analysis

SER provides formal evidence that VMU systematically monitors the study progress of students and that, the system is adequate.

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

(1) Factual situation

VMU keep track of the career of their graduates. Main sources are VMU Alumni survey, Employment service and statistics from Government Strategic Analysis Centre (STRATA). Every year VMU Career Centre makes a survey of newly graduated students. The students are asked about their work situation and how useful the HEI was for preparing their career.

According to the presented data from the STRATA, two thirds (66-69%) of graduates from the first cycle and more than 90% from the second cycle forestry programme were employed 1 year after their graduation, which is a high share. Further, 35- 43% of annual first cycle graduates and 61-84% of second cycle graduates were employed in high-skilled jobs. SER presents employers' opinions on graduates from study field of forestry average 8.4 and 8.3 in 2020 and 2021, respectively, however the score is hard to judge without seeing evaluations from other study fields. When evaluating of the most useful competencies for the labour market, forestry programmes' graduates from 2018-2020 gave clearly highest scores for "Knowledge and skills acquired during study sessions (61-100% of respondents) and "Knowledge and skills acquired during internship" (50-100%). Data on employment of

graduates presented in the SER is based on official data from the Government Strategic Analysis Centre and the career portal *karjera.lt*, is imprecise. For example, they do not provide information on what share of graduates have jobs within the field of their study.

(2) Expert judgement/indicator analysis

Very general information is presented on employment of graduates, and specific information is missing in the SER. Weak point - monitoring of employment of graduates - with very low proportion of respondents – only 18.7% in VMU in general and 31.8% in the Faculty of Forests and Ecology of Academy of Agriculture (AA) VMU in 2020 (<http://karjera.vdu.lt/apie-mus/apklausu-rezultatai/> (in LT)).

SER notifies that VMU as a whole and the Academy of Agriculture have active alumni clubs. However, none of the interviewed stakeholders/alumni knew about any activities of the clubs. To have a positive impact on SPs, contacts with alumni need to be nurtured at the faculty or programme level and not at academy or University level.

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

(1) Factual situation

VMU has a solid regulatory-procedural base concerning academic integrity, tolerance and non-discrimination, including VMU Statute, the Code of Ethics of VMU, VMU Provisions on Prevention of Plagiarism in Student Written Works and VMU Study Regulations. No cases of violating academic integrity, tolerance and discrimination were recorded during 2018-2021.

(2) Expert judgement/indicator analysis

Judging from SER, VMU has proper legal-procedural basis to handle academic integrity, tolerance and non-discrimination. It is, however, somewhat surprising that no cases of violations were recorded in the last three years in the analysed study field, especially knowing the generally increasing cases of violated integrity in the academic world, not least in the countries of Eastern Europe. Expert evaluation of SP is not set up for detailed investigations of whether the lack of recorded violations reflects the reality; or rather the violations (such as plagiarism by students) are present but undisclosed; or “sorted out” at the course level without reaching the administration or the Academic Ethics Commission. We do not have a basis for criticism however, we identify a potential area for a more proactive approach to disclosing the problematic cases.

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 legal basis for handling appeals and complaints is formed by VMU Regulations for Submission of Appeals Regarding Evaluation of Learning Outcomes and/or Assessment Procedure, VMU Provisions on Prevention of Plagiarism in Student Written Works and VMU Study Regulations. As noted in SER, there were no appeals or complaints in the forestry study field in 2018-2021.

(2) Expert judgement/indicator analysis

The procedures for the submission and examination of appeals and complaints regarding the study process are well established. Lack of cases at University Appeal Committee makes it difficult to evaluate the actual procedural efficiency.

Strengths and weaknesses of this evaluation area:

(1) Strengths:

1. VMU teachers apply a variety of methods in teaching and in assessing students' performance.
2. Good documentary basis for accommodating the needs of vulnerable groups and students with special needs, monitoring of the study progress, ensuring academic integrity and handling appeals.
3. High rate of employability of graduates.

(2) Weaknesses:

1. Declining number of students, increased share of students with full time jobs, as well as of the transition from campus-based to blended learning, must have significant but little understood effects on the process of studies. This should be investigated further.
2. The merger between universities entails the risk that the centralised educational administration does not provide sufficient attention and support to forestry SPs, particularly to addressing the issue of declining number of students.
3. Students complain about high intensity of the last semester in the first cycle programme
4. Rather poor tracking of employability, e.g. it is not known how big a share of graduates get employed within the field of their studies.

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

The order of LR Minister of Education and Science "On approval of Description of General Requirements for the Provision of Studies" state (section 28) is fully fulfilled in case of VMU. Apparently, all general requirements for the implementation of studies by law are precisely checked and fulfilled by VMU. There are 43 teachers working in all study programs in the field of Forestry: 10 professors, 10 associate professors, 22 lecturers (16 of them have a Doctoral degree) and 1 assistant. 72% of the teachers employed more than half-time positions. There are 11.3 students per one teaching staff member working in a full-time position at the Faculty. Teachers are members of some forestry focused international organisations. The teachers' activities are reported every year. It is clear, that general requirements for both cycles are fully fulfilled. Comparatively high entrance score for candidates (5.4 for universities, but 4.3 for colleges like KMAIK) is possible a problem for absolvents of rural schools, low salaries in forestry, ongoing reform of the State Forest Enterprise (staff reductions), negative public opinion about foresters are the main problems for declining number of students. These problems were presented by teachers of the Agriculture Academy of VMU during the meeting with the expert team.

Table No. 3. Teachers meet the general requirements for the first cycle studies

Requirement stated in Description of General Requirements for the Provision of Studies	In the <i>Forestry</i> study programme of the first cycle
No less than 50% of study field subjects must be taught by scientists or recognized artists	85%

Table No. 4. Teachers meet the general requirements for the second cycle studies

Requirement stated in Description of General Requirements for the Provision of Studies	In <i>Forestry and Wildlife Resources and Management</i> study programmes of the second cycle
No less than 80% of all study subjects teachers must have a scientific degree (or be renowned artists)	94%
The remaining share (20%) of teachers may be practitioners who, in the period of recent 7 years, have gained at least 3 years of experience in professional activities which correspond to the taught applied subjects.	87%
No less than 20% of major study field subjects' volume has to be taught by teachers occupying the position of a Professors	32%

(2) Expert judgement/indicator analysis

The description of the current situation seems to be idyllic. On the other hand, there is a rapidly decreasing trend in the number of candidates for admission, which will directly influence the number and also structure of teaching staff. Forestry is not a branch with high salaries and the public is not always positively feeling for the foresters. One of the most important motivating factors of parents may be well educated, highly up-to date teaching staff, which may prepare students for real practical life. Parents and students may also have possibilities to visit VMU prior to they are accepted in the admission process. There are already open days for students, those ones may be extended for parents, where teaching staff will conduct professional communication to them. The staff may be able to give complete individual courses in English, and/or bring foreign experts to teach individual talks/courses completely in English.

Connect existing plans for personal development (if they exist) to a motivation (also financial) system. It seems that employees are using possibilities for career development (continue in regular courses), which has been offered by VMU last years, but it is important to develop higher pressure and evaluate real improvement of skills gained during courses. Only highly educated, well teaching pedagogic staff may attract sufficient numbers of students to the faculty.

It is fundamental to make a good combination of lecturers and researchers. Each lecturer MUST publish (based on rules of VMU), and every researcher should teach and learn (this is

not common now). Such a system is possibly limited by VMU rules and/or customs. There must be initial motivation to gain the skills followed by regular feedback and positive and/or negative motivation after evaluation.

The teaching staff is not really open to wide international cooperation up to now. This is a long term and complex process, which must be well prepared and strongly accented by faculty top management. It is needed to prepare a long-term plan for attendance of teaching staff at conferences/mobilities in central and western top forestry universities in Europe. Such an activity must have a special budget. Foreign languages skills (English mainly) may be crucial in the future as there may be new study programs in cooperation with other VMU faculties completely taught in English.

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

Academic mobility is limited during the evaluation period, partially due to Covid situation. In 2019 there were 14 visits and trips abroad for teachers, but only 6 visits during the last two years. There have been visits of faculty teaching staff to the Bavarian Office for Forest Genetics, the Conference of Deans and Directors of European Forestry Faculties and Schools. Erasmus+ visits cover various countries: Italy, Portugal, Holland, Croatia, Turkey, etc. There have been scientific visits from the USA and Germany, some other EU countries and also ex-Soviet Union bloc.

Mobility of the faculty teachers (shorter trips to scientific conferences are not included) suffered in Covid times when 14 teachers travelled for Erasmus and internship in 2019, only 2 in 2020 and four teachers in 2021. Academic mobilities are significant part of academic life and they improve the quality of teaching. After returning from visits, teachers innovate their teaching methodologies, use accumulated new knowledge, and acquired practical experience into the study courses which they teach. Incoming teachers, mainly from countries with high level of forestry education, provide students with additional knowledge about the management of forest ecosystems in other countries and in other conditions. Students have possibility to compare this with the conservative local practices in our own country. Academic exchanges are vital to ensure the internationalization of science as the contacts established are further developed via joined international projects and publications.

(2) Expert judgement/indicator analysis

It is understandable that the mobility has been influenced by Covid situation. As there is 2-3 years gap in mobilities, we would recommend making a plan of intensive travelling for the coming years

Bring more "western" foreign experts (10 to 15 annually) to make international visits a regular part of faculty life. It is necessary to increase the budget for mobilities and exchanges. Let possibilities to those experts for both formal and also informal discussions to exchange personal experience, skills, and culture among them. Use also foreign experts visiting other VMU faculties and offer them formal/informal visits at the faculty.

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

(1) Factual situation

VMU has a system for teacher professional development. This is organised under 8 groups of competences: higher education didactics competences, digital competences, research competences, management competences, foreign language competences, intercultural

competences, subject-related competences, and personal competences. Teaching staff members are enhanced to take part in various courses. Some of them are more popular, someone's much less. VMU paid particular attention to on-line teaching, assessment and communication. The teachers are giving feedback after courses. In the last 3 years, 13 teachers developed their qualifications and competences 34 times. Qualifications and competencies were developed in the areas related to forestry disciplines, GIS, study quality, didactics, distance learning and Moodle, innovative forestry methods, foreign languages, etc. Ambitious teachers may also participate in professional development activities in other institutions, according to their needs and interests. If such opportunities require funds, the University teachers can apply for financial support to their departments or science and research clusters, take advantage of the Erasmus+ program and other opportunities.

(2) Expert judgement/indicator analysis

There is quite a clear and open professional career development system at VMU in education, science, quality of teaching, foreign languages at VMU. The adaptation for the Faculty is missing, as University rules are fully accepted, and Faculty gives specific conditions for career development. There are about 40 members of teaching staff, only 13 of them developed their qualifications in the last three years. What about the rest? I recommend making plans of personal development and discussing and pointing out weaknesses in the person's skills. Subsequently, recommend participation in one of the eight areas of courses.

Adopt an internal system and evaluate the quality of performance of individual Faculty members. For example, motivate each teacher to publish at least ONE paper in a high-quality journal (D1, Q1 as a main author) and each researcher at least TWO papers (D1, Q1 as a main author) in high quality journals annually. This is a clear signal that a person has excellent skills for scientific work. It is not important to count the number of courses a person passed, but the real outputs of career development should be taken into consideration.

Strengths and weaknesses of this evaluation area:

(1) Strengths:

1. Stabilised staff of highly qualified teachers with wide competences in education and partially also in science.
2. Existing system of career development and environment of a big University, which is stabilising the faculty into an educational system.

(2) Weaknesses:

1. There is too much formalism in Faculty life. It is important to increase internal discussion, including all staff to the decision decision-making process and let the possibilities not only bring, but also adapt new ideas to the faculty life.
2. The faculty is newcomer to VMU, and all staff need to use all opportunities, which this new and bigger environment allows. VMU is complex entity with plenty of possibilities to increase internal cooperation. The faculty is not sufficiently open to other university entities, revolutionary ideas in scientific cooperation, joint study programs etc.

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

There are 6 science and study laboratories and 6 specialized classrooms. Furthermore, other facilities outside the faculty can be used, e.g. labs of Soils Science, Entomology, Planta Anatomy and Physiology within the Faculty of Agronomy. Practical training is done in Kamša reserve and also on sites of State Forest Enterprise. There are also other forest sites that are used for teaching purposes.

Students have access to physical and online libraries together with labs and lab equipment if it is needed to carry out their research. Lower grade students usually don't get direct access to the lab equipment due to lack of competence, so the university provides supervisors to moderate the learning process in the labs.

The Genetics unit of the Climate change impact to forest ecosystems lab is newly updated with latest research equipment to study flora and fauna at the DNA level.

The facilities at the University are very accessible to people with disabilities. Lifts for wheelchairs, invalid parking, and special equipment for disabled at the workplace and library are available.

(2) Expert judgement/indicator analysis

Necessary equipment and facilities are provided by the university. There are plans to continuously make required upgrades. Facilities, equipment and software available are all up-to-date and adequate both for teaching and research.

3.6.2. Evaluation of the planning and upgrading of resources needed to carry out the field studies

(1) Factual situation

Agreements to replace outdated equipment have already been signed and approved. The Private Forestry lacks a demonstration/teaching/research area.

(2) Expert judgement/indicator analysis

Private forestry is still under consideration. Negotiations have been done with some stakeholders, e.g. Forest owner association, but nothing is settled yet. There is a need for a private forest to carry out certain field experiments for private forestry studies.

Strengths and weaknesses of this evaluation area:

(1) Strengths:

1. Modern equipment for detailed genetic research is provided.
2. University invests into equipment needed to carry out studies.

(2) Weaknesses:

1. No private forest available yet for demonstration and teaching, and to carry out necessary experiments.

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 internal quality assurance system of the studies in Forestry SP and Wildlife Resources and Management SP are based on the general provisions of the Vytautas Magnus University study quality assurance system which in turn relies on the Standards and Guidelines for Quality Assurance in the European Higher Education Area (2015), national and VMU legal acts. The main internal documents are publicly available at the web-site of the VMU both in Lithuanian and English.

The Council of the Faculty of Forest Sciences and Ecology and the Council of the Agriculture Academy are responsible for ensuring the quality of study programs. The Study Program Committees are the main actors in the updating, quality assurance of the study program. Forestry SP Committees for both the first study cycle and the second study cycle consist of the same 10 members, out of them 7 are teachers, 1 representative of social partners and 2 representatives of students. Wildlife Resources and Management SP Committee consists of 9 members, out of them 5 teachers, 3 representatives of social partners and 1 representative of students. The composition of the Committees is announced on web-site of the Agriculture Academy of VMU. The members of the Committee are responsible for respective functions. The procedure of the work of the Committees is described in a good manner in the SER.

(2) Expert judgement/indicator analysis

The expert committee finds that the quality assurance system of the studies is well described and follows a well-structured system. The internal quality assurance system of the studies is detailed in a series of internal legal documents of VMU which in turn relies on international and national legal acts. All documents regulating the system of the internal quality assurance are made public on the web-site of VMU both in Lithuanian and English which is good. The Study Program Committees are the main part of the study program quality assurance, and the work of the Committees is described in a good manner. According to internal legal acts of VMU, the study programme committees must consist of at least 5 members, but the Forestry SP Committee and Wildlife Resources and Management SP Committee consists of 10 and 9 members, respectively. They include 2 representatives of students and even 3 representatives of social partners, respectively, which is good. The Forestry SP Committees for both the first study cycle and the second study cycle consists of the same 10 members which ensures continuity of studies in the second cycle. In summary, it could be stated that internal study quality assurance system is adequate and efficient: it is based on regular monitoring, feedback and publicity.

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

(1) Factual situation

The quality of studies is ensured through different regular surveys in which stakeholders (students, alumni, teachers and employers) are involved. In addition to questionnaires, various other ways of collecting opinions are used in order to increase the involvement of social stakeholders: interviews, conversations, round table discussions etc.

After the merger of the universities, the student representative councils of the faculties of the former ASU faculties were disbanded. Currently, VMU Student Parliament delegates student representatives to the committees of study programs, to the councils of the Faculty and the Academy, to the Senate, to self-evaluation groups. Student representative is involved in the attestation commission of lecturers.

Next to the teachers, both representatives of students and social partners are included in the Study programme committees. Even 3 representatives of social partners are included in the Wildlife Resources and Management SP Committee which consists of 9 members. Two representatives of social partners are involved among 5 members of the Committees for defence of final thesis in all three study programs evaluated, and one of these representatives of social partners is the chairman of the respective committee

(2) Expert judgement/indicator analysis

The expert committee finds that involvement of stakeholders in the internal study quality assurance system is good. First of all, stakeholders are involved through different surveys which are carried out regularly and anonymously. Representatives of stakeholders (students and employers) are included in the composition of Committees of Forestry SP and Wildlife Resources and Management SP where they can provide their recommendations regarding improvement of study quality. The expert committee finds good involvement of social partners in the activity of study programmes committees and committees for defence of final thesis. It is noteworthy that even 3 representatives of social partners are included in the Wildlife Resources and Management SP Committee which is good for ensuring the preparation of qualified graduates for the practical work. Large proportion of the social partners are graduates of Forestry SP, with whom there is close contact in the organisation of student training. Support of the Alumni Club of Agriculture Academy should be noted in financial support to students from the Alumni Foundation.

Alumni Club of Agriculture Academy could be activated but an organisational push for that would be needed from the VMU. The club could for example serve for closer linking of current students and alumni, for example by annually organising promotional events like “career days” for students where the Alumni Club members could have an important role in presenting job opportunities, working life experiences and useful skills for students tailored by offered specialisations.

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

(1) Factual situation

Detailed information on collection of information for feedback for improvement of quality of studies is provided in the “Description of Procedure of Feedback for Improvement of Quality of Studies at Vytautas Magnus University”. Methods, deadlines and implementers of feedback collection, feedback quality assurance, data usage and dissemination are detailed in this document.

Some additional surveys are carried out on the basis of the need. Surveys are conducted anonymously using an electronic survey system. Access to the results of the surveys is provided to the administration and the SP Committees, who share the summarised information with teachers, students, and other social stakeholders. Moreover, all teachers at the University have access to the detailed results of the survey on teaching and learning in the study courses they provide each semester. Some results of surveys carried out in 2021 and use of these results for improvement of study quality are presented in SER (p. 85).

However, publication of information on results of surveys and its public availability is very poor and insufficient. It is indicated in Description, that “Summarised results of the feedback

data analysis shall be published on the websites of the University or its divisions, they shall also be publicised through other appropriate means of communication.”

On the website of VMU (<https://karjera.vdu.lt/apie-mus/apklausu-rezultatai/>), summarised results of only three surveys are presented, and these results are summarised jointly for the entire VMU. Any information on results of surveys of students in Forestry SP is absent on the web-site of the Agriculture Academy of VMU.

(2) Expert judgement/indicator analysis

The expert committee finds that the collection and use of information on studies, their evaluation and improvement processes follow procedures detailed in the “Description of Procedure of Feedback for Improvement of Quality of Studies at Vytautas Magnus University”. All stakeholders (students, teachers, alumni and employers) are involved in evaluation of the quality of study process through such surveys. Summarised feedback data are used for improvement of quality of studies. However, publication of information on results of surveys and its public availability for Forestry SP and Wildlife Resources and Management SP are insufficient. Such information is absent on web-site of the Agriculture Academy of VMU. The expert committee recommends remedy for this shortcoming.

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

Students have the opportunity to express their opinion about the quality of the studies through different surveys carried out in the Faculty of Forest Sciences and Ecology of the Agriculture Academy of VMU. It should be noted that only some results of surveys carried out in 2020-2021, i.e., after merging the Agriculture Academy with the Vytautas Magnus University, are presented in SER.

The surveys of the graduates of studies (EXIT) about the studies, final theses, and the preparation for the labour market are conducted at the end of the studies, and they give important information in this field. The results of the survey of graduates carried out in 2020-2021 revealed that it is important to update the list of places for professional internship (to include the private forestry sector), tasks of professional internship reports, requirements for final theses, to organise intermediate defence of theses. These issues have been included in the improvement plan of the first cycle Forestry study program for 2021–2022.

It is noteworthy that in the same survey, the contribution of VMU to preparation of graduates for the labour market was evaluated as “good” only by 27 out of 71 respondents (38%) (SER, p. 86).

Following the surveys “Teaching and Learning Evaluation”, carried out each semester in 2020-2021, the quality of teaching was assessed by students as 9 (on a 10-point scale): especially positively was assessed the inclusion practical examples in study content; more teachers' constructive feedback on the tasks performed by students is expected, in some cases teaching methods could be more inclusive into the subject.

(2) Expert judgement/indicator analysis

The expert committee found that students have the possibility to express their opinion about the quality of the studies through different surveys carried out in the Faculty of Forest Sciences and Ecology of AA VMU. The needs highlighted during students' surveys were integrated into the areas of improvement. During the meeting of the expert team with

representatives of students in Forestry SP, students expressed satisfaction with the quality of studies, but also made some remarks.

Strengths and weaknesses of this evaluation area:

(1) Strengths:

1. The internal study quality assurance system is adequate and efficient: it is based on regular monitoring, feedback and publicity.
2. Involvement of stakeholders (students, teachers, employers) in the improvement of the study process is good.

(2) Weaknesses:

1. Publication of information on summarised results of stakeholder's surveys in study programmes is insufficient.

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.

V. RECOMMENDATIONS*

Evaluation Area	Recommendations for the Evaluation Area (study cycle)
Intended and achieved learning outcomes and curriculum	<p>More attention should be put on providing practical professional skills, in terms of both extent and progression. Provide forest courses in English to make Lithuanian students familiar with English forest terminology and to attract foreign exchange students.</p>
Links between science (art) and studies	<p>Make a strategy to keep the balance between decreasing number of students and funding based on science.</p> <p>Increase the publishing papers in the top (the first decile of journals on WOS) led by the Faculty staff.</p> <p>Open Faculty more to foreign scientists and accept more MSc graduates out of forestry graduates.</p>
Student admission and support	<p>The workload in the program, especially in the last semester of first cycle, can be too hard and the structure may be overlooked and modified.</p> <p>More courses given in English should be provided, in order to give students better English terminology and to attract foreign students.</p> <p>To increase admissions, expert panel recommend considering relaxation of admission requirements to the second cycle programme, to students from other areas than forestry.</p>
Teaching and learning, student performance and graduate employment	<p>More attention and support from the central VMU administration is necessary to reverse the trend of declining intake and to ensure harmonised development of science and studies.</p> <p>The merger between universities led to major structural changes of study administration, the structures still need to be stabilised. The expert panel recommends reinforcement of administrative resources at programme and/or faculty level to support tailored development of the first and second cycle programmes with a major focus on increased numbers of applicants.</p> <p>To increase interdisciplinary of studies, we recommend considering block system instead of the semester system of studies for the first cycle and especially for the second cycle programmes.</p> <p>In the first cycle forestry programme, we suggest allocating dedicated time slots for preparing the Bachelor's thesis, without other courses running in parallel.</p> <p>Forestry Alumni Club could be activated but organisational push for that would be needed from VMU side. The club could for example serve for closer linking of current students and alumni, for example by annually organising promotional events like "career days" for</p>

	<p>students where the Alumni Club members could have an important role in presenting job opportunities, working life experiences and useful skills for students tailored by offered specialisations.</p> <p>It is recommended to improve the graduate employment tracking system for the Forestry SP in the AA VMU, and to use these data for improvement of preparation of graduates for the practical work.</p>
Teaching staff	<p>Motivate the teaching staff to improve their personal skills, widening the international cooperation and research and science activities via plans of personal development.</p> <p>Expert panel would recommend making a strategy to attract highly qualified foreign scientists and to create an environment for formal/informal discussions with local staff.</p> <p>Increase internal discussion at faculty, including all staff to the decision making process and let the possibilities not only bring, but also adapt new ideas to the faculty life and open the faculty to cooperation to other entities of VMU.</p>
Learning facilities and resources	<p>The facilities of the faculty seem to be very good. Most of the equipment is modern and up to par. There are a few cases where equipment needs to be updated. Expert panel should propose a closer cooperation with KMAIK on the equipment side, where resources could be pooled, as well as instructors. Agreements with private forest owners should be made to provide for practising private forest management.</p>
Study quality management and public information	<p>Increasing the public awareness about forestry and promoting the forestry profession among youth should be an important mission of VMU. It is recommended that the staff of VMU more actively contribute to public debate on forests in national and professional media and take part in policy processes, like the National Agreement on Forest.</p> <p>The University delivers good forestry education and produces graduates attractive on the job market, it should maintain and even reinforce offensive marketing strategy to spread the word about the strengths of the forestry study programme, including media adds, school visits, public campaigns, etc.</p> <p>Summarised results of analysis of stakeholder feedback data on study quality should be published on web-site of the Agriculture Academy of VMU as it is provided in the “Description of Procedure of Feedback for Improvement of Quality of Studies at Vytautas Magnus University”.</p>

*If the study field is going to be given negative evaluation (non-accreditation) instead of RECOMMENDATIONS main **arguments for negative evaluation** (non-accreditation) must be provided together with a **list of “must do” actions** in order to assure that students admitted before study field’s non-accreditation will gain knowledge and skills at least on minimum level.

VI. SUMMARY

Main positive and negative quality aspects of each evaluation area of Forestry field study at Vytautas Magnus University (VMU):

Both the study programmes (1st and 2nd cycles) seem to work well. There are a broad range of courses and the students acquire a wide and holistic knowledge of the field. The graduates are sought after at the job market. The biggest challenge is the declining number of students. This problem the faculty has to tackle, but it needs to cooperate with the whole forest sector to turn this negative trend. With a small number of students it will be hard to justify the present broad and versatile competence amongst the teachers.

Forestry is an international discipline, however with national and regional differences. The Covid restrictions have obviously affected the possibilities for international cooperation. We would recommend the faculty to increase international exchange, for teachers as well as for students. Students seem to be reluctant to go on exchange abroad, mainly because so many are working parallel with their studies. Some type of stipend system for studying abroad could maybe increase interest. But an influx of foreign students could also inspire the domestic ones. However, that requires that there are a number of courses that are given in English.

The students seem to be quite satisfied with their studies. However, many of them have problems balancing studies, work and personal life. Probably this is a common problem among all university students in Lithuania (and in other countries).

The merger between universities led to major structural changes of study administration, the structures still need to be stabilised. The group recommends reinforcement of administrative resources at programme and/or Faculty level to support tailored development of the first and second cycle programmes with a major focus on increased numbers of applicants.

The staff is highly qualified within their fields. However, more international cooperation and exchange would be desirable.

The facilities and equipment provided for the students are mostly excellent. There is some equipment that needs to be updated. Maybe an option for the future would be to share resources with KMAIK. Areas for practising private forest management should be provided.

The internal study quality assurance system is adequate and efficient: it is based on regular monitoring, feedback and publicity. Involvement of stakeholders (students, teachers, employers) in the improvement of the study process is good. However, publication of information on summarised results of stakeholder's surveys in study programmes evaluated is insufficient. Such information is absent on web-site of the Agriculture Academy of VMU.

Increasing the public awareness about forestry and promoting the forestry profession among youth should be an important mission of VMU. It is recommended that the staff of VMU more

actively contribute to public debate on forests in national and professional media and take part in policy processes, like the National Agreement on Forest.

Expert panel leader

Prof. dr. Bo Dahlin