



STUDIJŲ KOKYBĖS VERTINIMO CENTRAS

Vilniaus universiteto
STUDIJŲ PROGRAMOS *EKOLOGIJA*
(valstybinis kodas – 612C18001)
VERTINIMO IŠVADOS

EVALUATION REPORT of
ECOLOGY STUDY PROGRAMME
(state code – 612C18001)
at Vilnius university

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Išvados parengtos anglų kalba
Report language – English

DUOMENYS APIE ĮVERTINTĄ PROGRAMĄ

Studijų programos pavadinimas	<i>Ekologija</i>
Valstybinis kodas	612C18001
Studijų sritis	Biomedicinos mokslai
Studijų kryptis	Biologija
Studijų programos rūšis	Universitetinės studijos
Studijų pakopa	Pirmoji
Studijų forma (trukmė metais)	nuolatinė (4)
Studijų programos apimtis kreditais	240
Suteikiamas laipsnis ir (ar) profesinė kvalifikacija	Ekologijos bakalauras
Studijų programos įregistravimo data	2002-06-14

INFORMATION ON EVALUATED STUDY PROGRAMME

Title of the study programme	<i>Ecology</i>
State code	612C18001
Study area	Biomedical Sciences
Study field	Biology
Type of the study programme	University studies
Study cycle	First
Study mode (length in years)	Full-time (4)
Volume of the study programme in credits	240
Degree and (or) professional qualifications awarded	Bachelor in Ecology
Date of registration of the study programme	14-06-2002

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I. INTRODUCTION

1.1. Background of the evaluation process

The evaluation of on-going study programmes is based on the **Methodology for evaluation of Higher Education study programmes**, approved by Order No 1-01-162 of 20 December 2010 of the Director of the Centre for Quality Assessment in Higher Education (hereafter – SKVC).

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

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

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

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

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

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

1.2. General

The Application documentation submitted by the HEI follows the outline recommended by the 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.	The Self Evaluation Team’s responses to questions raised by Evaluation Committee prior to the visit
2.	Visual material of the remote infrastructure prior to the visit (was made available among other evaluation materials)

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

The Faculty of Natural Sciences carries out 9 study programmes of the first stage (Biophysics, Biology, Ecology, Genetics, Geography, Geology, Meteorology and Hydrology, Microbiology and Biotechnology, Molecular Biology). One of these overlapping programmes is the undergraduate programme *Ecology*. This Programme is implemented at Vilnius University by the Ecology and Environment Sciences Centre. The programme is carried out since 1997. The programme was externally evaluated in 2010. The programme was evaluated positively and accredited for 6 years.

1.4. The Review Team

The review team was completed according *Description of experts' recruitment*, approved by order No. 1-01-151 of Acting Director of the Centre for Quality Assessment in Higher Education. The Review Visit to HEI was conducted by the team on 19th October 2016.

- 1. Prof. dr. Aleksandar Jovanovic (team leader)**, *Vice-rector for International relations, Professor of Faculty of Medicine, University of Pristina/K.MITROVICA, Serbia.*
- 2. Prof dr. Judit Padisák**, *Director of Institute of Environmental Sciences, University of Pannonia, Hungary.*
- 3. Prof. dr. Jacques van Alphen**, *Professor Emeritus at the Institute for Biodiversity and Ecosystem Dynamics, University of Amsterdam and the Netherlands Centre for Biodiversity, Netherlands.*
- 4. Dr. Ramunė Leipuvienė**, *Product Manager at UAB Thermo Fisher Scientific, Lithuania.*
- 5. Vaida Šidlauskaitė**, *Doctoral student at Lithuanian Sports University (Biology field), Lithuania.*

II. PROGRAMME ANALYSIS

2.1. Programme aims and learning outcomes

The aims and desired learning outcomes of the Programme are well-defined, in agreement with the Dublin descriptors. They are clearly described and publicly accessible. However, doubts arise about the realization of the programme aims, due to the content and organization of the Programme. With the current curriculum not all of the Programme aims can be met to a full extent. The Programme does only in part fulfill the requirement “to provide the theoretical basis of a study field” (Law on higher education and research of the Republic of Lithuania; article 48) and is only partially providing “*versatile theoretical knowledge of study field and professional activity*

based on the new fundamental and applied scientific research results” (Descriptor of study cycles). The programme does not meet some of the requirements of the description of study, approved by the Lithuanian Minister of Education and Science in 2011: the programme does not cover the full scope of Ecology, and thus cannot totally realize the aim of “*broad ecological knowledge*”. It certainly does not provide “*knowledge about the latest achievements in the field of ecology*”. It fulfils only partly the desired outcome of “*Fundamental and applied research based on the latest ecological direction of knowledge and skills to apply them in research and solving practical conservation and environmental exploitation tasks*”. It is not totally clear how the Programme could realize the learning outcome of “*Integrated knowledge in professional activity*” as the programme provides neither experience in ecological experimentation, nor in the methods of comparative research. Further reasons are explained under 2.2 Curriculum design, content and scope.

The Programme is more designed for learning knowledge than for learning skills. Therefore, and because of the reasons mentioned under the first paragraph, the programme does not completely fulfill the academic requirements for training ecologists. Nevertheless, the BSc graduates fulfill the needs of some enterprises and organisations in the labour market, but the labour market is now saturated according to one of their representatives.

The general competence no. 9 (SER, page 8) is targeted at developing “*The ability to apply the acquired knowledge in environmental and legal practice*”. The narrow niche for electives and the lack of courses in Lithuanian and EU environmental legislations may question the possibility to achieve these competences. This insufficiency was mentioned by the social partners, especially those from NGOs, along with a request for some basic knowledge in project writing and – management.

It is unclear how the Programme could realize the learning outcome “*the ability to gather and analyze data necessary for solving substantial scientific and professional activity issues*” (Dublin descriptors) as the content of the curriculum is incomplete (e.g. ecological statistics is only an optional course). To analyse data, students must be able to use modern statistic programmes like R, and every ecologist should be able to deal with multi-variable statistics.

Ecology is the science that studies the *processes* in ecosystems (e. g; interactions between organisms and their effect on the distribution and abundance of species, or nutrient cycles through trophic food-chains). The discipline is based on a rich body of theory. The Programme focuses on training students with a wide taxonomic knowledge who are able to make inventories of a variety of ecosystems and to make descriptive studies. Of the theoretical basis of the discipline of Ecology only parts are provided by the Programme, many others are missing (see below). The Programme

does not offer training in ecological experimental or comparative research. For these reasons the name “Ecology” is not quite appropriate for the Programme and the evaluation panel suggests changing the name to *Biodiversity protection*, which would more appropriately describe the Programme’s contents.

2.2. Curriculum design

The curriculum complies with the General requirements of first degree and integrated programmes. However it does not follow the recommendation no. 5 of the General requirements “*that the study programme provides an opportunity and defines the procedure for a free choice of subjects in the same institution (preferably in another department) or in another higher institution*”, as most of the optional subjects are within the study discipline and of compulsory nature. This is regrettable, as it prevents students to choose subjects of personal interest.

Only 5 credits in semester 4, 6 and 7 each have been reserved for opportunities mentioned under no. 5 in the General requirements, while 32 credits have been reserved for optional subjects that should be part of the compulsory programme (SER, page 15 & 16). This arrangement does not allow the students to personalize their studies, in view of their scientific interest or of their future career plans.

Although the Programme is presented as a BSc in Ecology, no Ecology at all is taught during the first 2 semesters. An introductory course, explaining what Ecology is and how it relates to other sub-disciplines of Biology and to other areas of science is missing. The subjects that are taught during the first 2 semesters require students to learn large numbers of facts in a short time. This makes students’ experience of the first two semesters difficult. It seems that this is one of the causes of the high drop-out rate during the first year, as the student representatives told the evaluation panel that the first two semesters are experienced as demotivating.

The sequence of study subjects is not always logical. For example, *Soil Ecology* is taught parallel with *General Ecology* though GENERAL knowledge on a discipline (ecology in this case) ought to precede SPECIFIC ones (like soil here). *Basics of theory of evolution* should be taught in the first semester. The course *Introduction of studies* is optional. It should be compulsory and be given at the start of the Programme.

The curriculum design is rather traditional, not so much following recent (and the best) trends in academic education of Ecology, but with heavy accents on systematics and habitat-specific descriptive knowledge. The panel did not find any evidence that students are trained in the methods of experimental or comparative studies. The course *Methodology of Ecology* is optional, whereas all students require such skills.

It is not clear how the Programme achieves that students are able to integrate knowledge from all the different sub-disciplines in Biology and other disciplines in science. The random way in which courses seem to be distributed over the Programme, the lack of Philosophy of Science in the Programme and the lack of an introductory course explaining what Ecology is about and how it relates to other disciplines in Biology and other natural sciences provides no help to the students in integrating the knowledge.

The scope of the Programme is only partly sufficient: Behavioural ecology, Evolutionary ecology, Theoretical ecology, Life history theory, Conservation biology, Ecological modelling and Philosophy of science are important sub-disciplines in modern Ecology seem to be missing in this Programme. Knowledge provided by the Programme in aquatic ecosystems is insufficient. Basics of Hydrology can serve as a good basis for a course in Limnology or Hydrobiology but such courses are missing. The whole Programme (including thematic of all courses) misses such important items as diversity of aquatic habitats or specific features of aquatic food webs. The course of Ecological Statistics is elective, while this is an essential skill for all ecologists. The course Methodology of Ecology teaches skills and techniques to collect particular data. It does not, however, teach research methods in Ecology (e. g. comparative methods, experimental design or the study of time series), all essential as skills for doing research.

Although the BSc thesis project is an important part of the Programme, the scope of project subjects, provided by the staff, is very narrow, including only descriptive field studies and inventories of particular ecosystems. Although the latter are important as a first basis for Ecological study, a BSc programme in Ecology should preferentially have projects in which hypotheses are addressed and ecological processes are studied, either by experimentation, by comparative methods or by modelling.

The programme is rather old-fashioned. Accordingly, the students became quite trained in collecting data both of habitats and biota or specific groups of biota, which is, inevitably, a crucial element for conducting ecological research. Consequently, it trains students for descriptive field studies and hardly for the study of ecological processes. It is therefore not a surprise that the majority of BSc-theses have descriptive data as basis.

2.3. Teaching staff

The composition of staff meets legal requirements stipulated in legal acts of the Republic of Lithuania and study program regulations of VU. By numbers, the Programme is executed by a staff meeting the legal requirements and teachers possess adequate qualifications: 34 (91.9 %) of the 37 lecturers working in the programme have degrees.

Altogether 37 teachers participate in the programme of which 8 are ecologists. These numbers alone should be more than adequate to realize the intended learning outcomes of the Programme.

During the period of evaluation, the turnover of the academic staff has been small: 2 professors left and one assistant professor was promoted to full professor. The present age distribution predicts a high turnover in the near future, necessitating new recruitments. This provides a good opportunity to modernize the Programme.

The high teaching and administrative load of the teaching staff prevents them to develop productive research programmes and to update their skills in didactics. Both may have consequences for the quality of teaching. Upon a question by the panel, the SER team estimated the annual time available for research as only 190 hours. That is certainly insufficient for professional development of the teaching staff. This is especially critical for the young teachers in their most creative career stage. According to interviews with the teaching staff, dealing with administrative issues of projects (writing applications, reporting... etc.) is not part of their work, though without such kind of activity the necessary intellectual and material background of modern ecological research cannot be established and maintained. The high teaching load in combination with the low number of students entering the Programme suggests inefficient use of teaching staffs' intellectual resources. With 8 ecologists in the staff, it should be possible to teach good BSc and MSc programmes in Ecology. If teachers had enough time to do research, they could have research programmes in which students could participate to do thesis work. The lack of good running research programmes of the staff seriously threatens the success of Vilnius University, and prevents the acquisition of research grants offered by the EU. The panel kindly reminds the Programme management of Article 64 of the Law on higher Education and Research that states: "Every five years teaching staff members may be released for a period not longer than one year from their pedagogical work to conduct research and to improve their scientific and pedagogical qualification" and suggest that maximum use of this possibility is utilized.

The publications output of the teaching staff meets the legal minimum requirements, but it does not reach the common international thresholds. The publications of the teaching staff are only for a small part (approx. ¼) in the field of the Programme. Publication activity is rather low in terms of quality measures. Involvement of students in research is limited; none of the students present at the interviews took part in research projects of the teachers. The latter provides another reason why not all learning outcomes can be reached to a full extent by the present Programme and organization, e.g. the training in experimental and comparative ecological research (see 2.1) would only be possible when students participate in research projects of teachers.

2.4. Facilities and learning resources

The premises are more than adequate in size and quality. Apart of the new laboratories equipped with modern technical infrastructure, the Faculty hosts classical collections, among them the largest herbarium of Lithuania. In view of recent development of molecular genetics, such collections are especially suitable for Evolutionary ecology research. However, the leader of the Herbarium could not provide any paper reporting of use of the herbarium materials for such research. The Panel advises the programme managers to make full use of the scientific potential that is offered by the Herbarium and to intensify its use in research in the future.

The teaching and learning equipment are adequate in size and quality and in this aspect, the Programme could easily compete with similar programmes abroad.

The newly renovated Puvociai practice centre (equipped with 3 teaching laboratories and 2 audiences, microscopes, binoculars and other equipment necessary for outdoor practices, media, internet and sufficiently diverse educational literature) provides a sufficient basis for practices. Teaching materials are adequate; the library provides appropriate conditions for the studies. However, the Web of Knowledge, a crucially important database, was not accessible from a computer resident in the library during the site visit. A later trial (Dec. 2016) found the WoS accessible.

2.5. Study process and students' performance assessment

The admission requirements for entering the programme are well described, publically available and in accordance with the University rules.

An important part of the Programme is the preparation of a BSc-thesis. There is very little opportunity for students to prepare a BSc-thesis on solid ecological research carried out under supervision of a staff member and within the research programme of a staff member. Involvement of students into research work has been definitely insufficient. They complained about difficulties in getting access to lab facilities especially when their thesis work would need infrastructure at other units of the faculty. Probably as a consequence of insufficient project activity, students have to cover expenses of their field work related to their theses. Students also complained that they themselves had to cover the costs of the research (e. g. consumables) for the BSc thesis.

The Faculty of Natural Sciences allows students to go abroad through the exchange programme Erasmus, usually for the third and fourth year students. In 2011-2015 period 15 students went to 8 universities in Europe. This is facilitated by the increase in flexibility allowed to students. Now the administration accepts the credits earned when on exchange studies without requiring that foreign courses matched the courses of VU Ecology study programme. Students

greatly appreciate this change. There are still many students who do use the possibility to study elsewhere in Europe. In part, this is because of language barriers they perceive.

The acceptance of credits earned for courses other than through Erasmus or crediting the special skills of the students (like proficiency in English) is not in place yet. The mechanism for recognition of prior learning should be established.

Vilnius University offers a number of measures for social support such as special grants for academic excellence, social grants, professional psychological assistance, and participation in sport or artistic activities are also provided.

The academic progress of students throughout the course is assessed differently depending on the subject and teacher: continuously, include mid-term or just final assessment. The final mark is usually based on the marks for the participation in seminars, individual or group project, and final examination. Students have indicated that the assessments mostly focus on testing facts learned by heart and not on skills in scientific reasoning. Vilnius University applies a 10-grade system for assessing the performance of students and criteria are formulated clearly. More use should be made of the didactic methods of group-work and project-oriented teaching.

The SER did not provide quantitative data on the professional activities of the graduates, which makes it difficult to judge if the professional activities of graduates meet the expectations of the Programme providers. The SER provides examples of what some graduates are doing now, but has no data on many others. Book keeping of the professional activities of all graduates would provide a good basis to judge if and how the Programme needs to be adjusted.

2.6. Programme management

The Study Programme Committee (SPC) is responsible for the Programme design and its maintenance. However, neither the Faculty Management, nor the SPC appeared to have a clear view on the provision of the Programme especially in view of the large total number of offered programmes and the relatively small (and declining) number of admitted students (apparently resulting in high teaching loads on expense of research and publication activity).

The VU Information System (VU IS) provides the ability for students and staff to access and manage their studies. Teachers upload results of exams and students have access to these data. Twice a year, at the end of each semester, students can give feed back and evaluate courses anonymously, through an electronic database. Students do not think that this has much effect since some problems regularly reappear. Experience of graduate students (alumni) is not used to improve the Programme as they are not invited to assess Programme performance. Social partners do not take part in the SPC as permanent members, which is a missed opportunity.

According to the student's opinion, the Study Programme Committee is open to their suggestions (examples: some reorganization of the courses, expelling the previous and ineffective course in informatics) though they question the efficiency of internal quality assurance since there are re-appearing issues (for example: more practical work).

As to external evaluation of the Programme, in contrast to the recommendation of the previous evaluation panel, the Center for Ecology has not been raised to the status of regular Department. The Panel found little evidence of further support to improve the research output of the staff, which is also in contrast to the recommendation of the previous evaluation. The social partners complained about a lack of knowledge of Ecology BSc graduates on relevant EU-directives, as was also advised in the previous evaluation report. Students complained about the small amount of practical training they receive. These complaints were already addressed in the recommendations of the previous evaluation. In conclusion, the management has ignored the recommendations of the previous evaluation.

Employer representatives participate in the Committee, but only when the SPC judges this necessary: "If necessary, the social partners are invited to the Study Program Committee meetings" (SER p. 45 (6.5)). It is unclear how frequently this happens in practice, and it would be advisable to have at least one member of the social partners as formal member of the SPC. The SER mentions only two social partners. It is, for a number of reasons, advisable to increase participation and the number of social partners.

The Programme management bodies, i.e. the SPC, the Faculty Council and the Senate of Vilnius University are responsible for the different quality aspects of the study programme. The quality is monitored by collecting and analyzing feedback from students, but the staff complains that many students do not return questionnaires and do not give feedback. Involvement of the social partners is on an ad hoc basis (see above). There is no good book-keeping of the professional activities of the graduates. This hampers feedback by graduates on the programme.

III. RECOMMENDATIONS

1. The management of Vilnius University has to develop a strategic plan on equilibrating the number of offered programmes and admitted students, and decreasing the teaching load of teachers.
2. The Programme has to be reorganised in order to better achieve the intended learning outcomes and gained competences. This should involve inclusion of i) general ecological courses at the beginning of the studies; ii) courses corresponding to the state-of art of modern ecology, in particular a good foundation of ecological theory and the research methods to test these theory; iii) compulsory course(s) on ecological statistics; iv) courses facilitating managerial and legislative issues (e.g. Lithuanian and EU environmental legislation).
3. The changes must follow the line of a process-based ecology, training students for experimental ecological research, instead of giving priority to providing them with detailed knowledge on particular groups of biota or habitats and training for descriptive fieldwork. The list of subjects for BSc thesis projects should reflect the present state-of-art of ecology. Alternatively, the SPC might consider changing the name of the Programme in *Biodiversity protection* along with consequential changes (e.g. string bases in conservation biology) in the Programme design. The name *Biodiversity protection* would better describe the present Programme.
4. Teaching and administrative load of the teachers must be decreased, to allow the staff to spend at least 30% of their working hours on research. Research activity of the teachers along with inclusion of students into the research work should be substantially increased. A clear, quality-based evaluation system of the teachers' publication activity must be set. Teachers should receive training in writing research proposals to obtain funding for research programmes from the EU.
5. The present good material infrastructure of the Faculty must be more intensively used for research and for research training of students. To make this possible care should be taken that a continuous supply of the necessary consumables is present. Moreover, the travel costs of students to the study sites for the BSc thesis work should be covered by the University.

IV. SUMMARY

In view of the recent global (climate change, worldwide invasions) and local (different kinds of human impact) threats, it is essential to train ecologists who are able to understand and predict abundance and distribution of biota and the underlying processes. The VU *Ecology* BSc is formulated according to the Lithuanian regulations and it fulfils its criteria in all aspects of the requested numbers. The Programme aims and learning outcomes are clearly formulated and are publicly accessible. However, the current Programme, with little emphasis on ecological theory and on the study of processes could only partially fulfill the aims and learning outcomes.

Although the curriculum design formally fulfils legal requirements, it is rigid allowing little room for electives that may adjust studies to the career expectation of the students. The Programme needs a thorough revision concerning the structure, the courses taught and their contents to make it conform to the expected aims and outcomes. Most importantly, at present the content of the programme only weakly reflects the latest achievements in science.

The Programme is run by an adequate number of teachers, who have the required teaching experience and qualification. Turnover in the staff was small. The present age distribution predicts a high turnover in the near future, necessitating new recruitments. This provides a good opportunity to modernize the Programme. The teaching and administrative load of the teaching staff is far too high, driving the achievement of the intended learning outcomes into jeopardy. Under the above pressure, the publication activity of the teaching staff is critically low, additional activities for project writing, -management and -reporting are not acknowledged by the present teacher evaluation system. Additionally, a quality oriented scientific assessment system based on journal rankings and citation records is missing and should be made in place.

As a result of the constructions in the past several years, the teaching environment is excellent both in size and quality. Arrangement and facilities for field practices are sufficient. Care is needed to supply the existing technical infrastructure with the necessary consumables and to utilize them for research. This should include the travel costs of students to the study sites for the BSc thesis work.

The mechanisms of internal and external quality assurance are sufficiently regulated at university and faculty level. Currently, Vilnius University applies a 10-grade system for assessing students' performance and criteria are formulated clearly. Opportunities to take part in Erasmus programs are good and students actively use these possibilities. Vilnius University offers a number of measures for social support.

Involvement of students in research is rather weak and teaching methods must use more intensively group-work and project-oriented approach on expense of the fact-learning-based evaluation.

The Programme is run by the Centre of Ecology, which was not raised to departmental level as recommended by the previous evaluation. Though the responsibilities of the SPC are clearly regulated in the relevant documents of the Vilnius University, neither the Faculty nor the SPC appeared to have influence on the strategic development of the Programme. The system appears to be geared to the aim of maximizing the number of entering students instead of improving the quality. The SPC regularly analyses the advance of the Programme and introduced a number of changes but some problems regularly reappear. Experience of graduate students (alumni) is not sufficiently used to improve the Programme as they are not invited to assess Programme performance. Involvement of social partners seems weak. Recommendations of the previous evaluation committee were largely neglected.

V. GENERAL ASSESSMENT

The study programme *Ecology* (state code – 612C18001) at Vilnius University is given **positive** evaluation.

Study programme assessment in points by evaluation areas.

No.	Evaluation Area	Evaluation of an area in points*
1.	Programme aims and learning outcomes	2
2.	Curriculum design	2
3.	Teaching staff	2
4.	Facilities and learning resources	4
5.	Study process and students' performance assessment	2
6.	Programme management	2
	Total:	14

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

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

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

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

Grupės vadovas:

Team leader:

Prof. dr. Aleksandar Jovanovic

Grupės nariai:

Team members:

Prof. dr. Judit Padisák

Prof. dr. Jacques van Alphen

Ramunė Leipuvienė

Vaida Šidlauskaitė

**VILNIAUS UNIVERSITETO PIRMOSIOS PAKOPOS STUDIJŲ PROGRAMOS
EKOLOGIJA (VALSTYBINIS KODAS – 612C18001) 2017-02-09 EKSPERTINIO
VERTINIMO IŠVADŲ NR. SV4-40 IŠRAŠAS**

<...>

V. APIBENDRINAMASIS ĮVERTINIMAS

Vilniaus universiteto studijų programa *Ekologija* (valstybinis kodas – 612C18001) vertinama teigiamai.

Eil. Nr.	Vertinimo sritis	Srities įvertinimas, balais*
1.	Programos tikslai ir numatomi studijų rezultatai	2
2.	Programos sandara	2
3.	Personalas	2
4.	Materialieji ištekliai	4
5.	Studijų eiga ir jos vertinimas	2
6.	Programos vadyba	2
	Iš viso:	14

* 1 - Nepatenkinamai (yra esminių trūkumų, kuriuos būtina pašalinti)

2 - Patenkinamai (tenkina minimalius reikalavimus, reikia tobulinti)

3 - Gerai (sistemiškai plėtojama sritis, turi savitų bruožų)

4 - Labai gerai (sritis yra išskirtinė)

<...>

IV. SANTRAUKA

Šiandien, kai vis daugiau kalbama apie globalines grėsmes (klimato kaitą, rūšių biologinę invaziją) ir vietos grėsmes (kylančias dėl įvairios žmonių veiklos), svarbu parengti ekologijos specialistus, gerai išmanančius įvairių organizmų rūšių pasiskirstymą ir jų visumą, gebančius numatyti aplinkos pokyčius ir suvokiančius esminius aplinkoje vykstančius procesus. Vilniaus universitete dėstoma bakalauro studijų programa *Ekologija* atitinka visus Lietuvos teisės aktų reikalavimus. Studijų programos rezultatai ir tikslai aiškiai suformuluoti ir viešai skelbiami. Tačiau dabartinė studijų programa, kurioje mažai dėmesio skiriama ekologijos teorijai ir procesų analizei, tik iš dalies pasiekia numatytus studijų rezultatus ir tikslus.

Studijų programos sandara formaliai atitinka teisinius reikalavimus, tačiau studentams siūlomas ribotas pasirenkamų dalykų skaičius, nesuteikiant studentams galimybės pritaikyti studijas prie jų karjeros lūkesčių. Reikia išsamiai peržiūrėti studijų programos struktūrą, dėstomus dalykus ir jų turinį, kad jie atitiktų numatytus studijų rezultatus ir tikslus. Kalbant apie studijų programos turinį, pažymėtina, kad per menkai pristatomi naujausi mokslo laimėjimai.

Studijų programą dėsto pakankamas skaičius dėstytojų. Jie turi reikiamą pedagoginę patirtį ir tinkamą kvalifikaciją. Darbuotojų kaita maža, tačiau atsižvelgiant į dėstytojų amžių, artimiausiu metu galima tikėtis didelės kaitos ir naujų darbuotojų atėjimo. Šis pokytis suteiks galimybę atnaujinti studijų programą. Dėstytojų pedagoginio ir administracinio darbo krūvis per didelis, dėl to yra sunku pasiekti numatytus studijų rezultatus. Dėl didelio darbo krūvio dėstytojai parengia labai mažai publikacijų. Pagal dabartinę dėstytojų darbo vertinimo sistemą neatsižvelgiama į

papildomas veiklas susijusias su projektų rašymu, valdymu bei ataskaitų rengimu. Skatinant dėstytojus skelbti daugiau publikacijų, reikia įdiegti kokybišką šios veiklos vertinimo sistemą, atsižvelgiant į mokslo žurnalų reitingus ir cituojamumo rodiklius.

Per pastaruosius metus išplėtojus studijų programai skirtą infrastruktūrą, studijų patalpos yra kokybiškos ir jų pakanka. Taip pat pakanka praktikos vietų ir įrangos. Reikia papildyti esamą techninę infrastruktūrą reikiamomis priemonėmis ir jas panaudoti mokslinėje tiriamojoje veikloje. Studentų kelionės išlaidos vykstant į bakalauro baigiamojo darbo rengimo vietas turi būti padengtos.

Vidinė ir išorinė kokybės užtikrinimo sistema gerai valdoma universiteto ir fakulteto lygmeniu. Šiuo metu universitetas taiko 10 balų studentų pasiekimų vertinimo sistemą. Vertinimo kriterijai aiškiai suformuluoti. Studentai turi galimybę dalyvauti mainų programoje „Erasmus“ ir noriai naudojami šia galimybe. Vilniaus universitetas teikia įvairią socialinę pagalbą.

Studentai per mažai dalyvauja mokslinėje tiriamojoje veikloje. Reikia pasitelkti dėstytojų metodus, orientuotus į grupinį darbą ir projektų vykdymą, o ne vertinti studentų pasiekimus pagal tai, kiek faktų jie išmoko.

Studijų programą vykdo Ekologijos centras, kurio statusas nebuvo pakeltas iki fakulteto lygmens, kaip rekomendavo ekspertų grupė per ankstesnį vertinimą. Nors Studijų programos komiteto funkcijos aiškiai apibrėžtos atitinkamuose Vilniaus universiteto dokumentuose, akivaizdu, kad nei fakultetas, nei Studijų programos komitetas neturi įtakos strategiškai plėtojant studijų programą. Vadybos sistema pagrįsta tuo, kad būtų pritraukta kuo daugiau studentų, o ne siekiu gerinti studijų programos kokybę. Studijų programos komitetas nuolat ieško būdų, kaip tobulinti studijų programą ir yra pateikęs nemažai pasiūlymų. Tačiau reguliariai išskyla vis tos pačios problemos. Siekiant pagerinti studijų programą, nepakankamai atsižvelgiama į absolventų (alumnų) patirtį, nes jie nedalyvauja vertinant studijų programą. Socialinių partnerių dalyvavimas taip pat menkas. Į ankstesnės ekspertų grupės rekomendacijas beveik neatsižvelgta.

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III. REKOMENDACIJOS

1. Vilniaus universiteto vadovybė turi parengti strateginį planą, kad būtų užtikrintas geresnis santykis tarp gana didelio siūlomų studijų programų skaičiaus ir palyginti mažo priimtų studijuoti studentų skaičiaus bei sumažintas dėstytojų darbo krūvis.
2. Studijų programą reikia pertvarkyti taip, kad būtų pasiekti numatyti studijų rezultatai ir įgytos numatytos kompetencijos. Tuo tikslu reikėtų į programą įtraukti i) bendrosios ekologijos kursus, dėstomus studijų programos pradžioje; ii) šiuolaikinės ekologijos dalykus, ypač ekologijos teorijos pagrindus ir su teorija susijusius tyrimo metodus; iii) privalomą (-us) ekologinės statistikos dalyką (-us); iv) dalykus, susijusius su vadyba ir teise (pavyzdžiui, supažindinti su Lietuvos ir ES aplinkos teisės aktais).
3. Pertvarkant studijų programą skirti daugiau dėmesio ekologijos procesų studijoms, įtraukti studentus į ekologijos eksperimentinius tyrimus, užuot siekus suteikti studentams išsamių žinių apie tam tikrų rūšių įvairovę ar jų gyvenamąją aplinką ir mokyti, kaip atlikti aprašomojo pobūdžio lauko studijas. Bakalauro baigiamųjų darbų temos turi būti susijusios su šiuolaikine ekologija arba Studijų programos komitetas galėtų apsvarstyti galimybę pakeisti studijų programos pavadinimą ir pavadinti ją *Biologinės įvairovės apsauga*, atitinkamai pakeitus studijų programos sandarą (pavyzdžiui, įtraukus populiacijų išsaugojimo biologijos pagrindus). Tokiu būdu pavadinimas *Biologinės įvairovės apsauga* geriau atitiktų dabartinę studijų programą.
4. Būtina mažinti dėstytojų pedagoginio ir administracinio darbo krūvį, kad dėstytojai galėtų skirti ne mažiau kaip 30 % savo darbo laiko moksliniams tyrimams. Dėstytojai turi daug

aktyviau dalyvauti moksliniuose tyrimuose ir į juos įtraukti studentus. Reikia įdiegti kokybišką ir aiškią vertinimo sistemą, pagal kurią dėstytojų mokslinis darbas būtų vertinamas atsižvelgiant į tai, kiek publikacijų jie paskelbė. Dėstytojai turi būti mokomi, kaip rengti mokslinių tyrimų pasiūlymus, kad galėtų gauti ES finansavimą mokslinių tyrimų programoms vykdyti.

5. Reikia dar labiau išnaudoti gerą fakulteto materialiąją infrastruktūrą moksliniams tyrimams ir studentų mokymui atlikti mokslinius tyrimus. Tam reikia užtikrinti, kad nuolat būtų apsirūpinta reikiamomis priemonėmis. Universitetas turėtų kompensuoti studentų išlaidas, susijusias su nuvykimu į bakalauro baigiamojo darbo rengimo vietas.

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

Vertėjos rekvizitai (vardas, pavardė, parašas)