

STUDIJŲ KOKYBĖS VERTINIMO CENTRAS

Aleksandro Stulginskio universiteto STUDIJŲ PROGRAMOS AGROEKOSISTEMOS (valstybinis kodas – 621C18003) VERTINIMO IŠVADOS

EVALUATION REPORT of AGROECOSYSTEMS STUDY PROGRAMME

(state code – 621C18003) at Aleksandras Stulginskis University

- 1. Assoc. Prof. dr. Trine Johansen Meza (team leader), academic,
- 2. Prof dr. Angéla Anda, academic,
- 3. Prof. dr. Aleksandar Jovanovic, academic,
- **4. Dr. Kęstutis Skrupskelis**, *representative* of social partners',
- 5. Vygailė Pundzaitė, students' representative.

Evaluation coordinator –

Natalja Bogdanova

Išvados parengtos anglų kalba Report language – English

DUOMENYS APIE ĮVERTINTĄ PROGRAMĄ

Studijų programos pavadinimas	Agroekosistemos
Valstybinis kodas	621C18003
Studijų sritis	Biomedicinos mokslai
Studijų kryptis	Biologija
Studijų programos rūšis	Universitetinės studijos
Studijų pakopa	Antroji
Studijų forma (trukmė metais)	nuolatinė (2)
Studijų programos apimtis kreditais	120
Suteikiamas laipsnis ir (ar) profesinė kvalifikacija	Ekologijos magistras
Studijų programos įregistravimo data	2009-08-17

INFORMATION ON EVALUATED STUDY PROGRAMME

Title of the study programme	Agroecosystems
State code	621C18003
Study area	Biomedical Sciences
Study field	Biology
Type of the study programme	University studies
Study cycle	Second
Study mode (length in years)	Full-time (2)
Volume of the study programme in credits	120
Degree and (or) professional qualifications awarded	Master of Ecology
Date of registration of the study programme	17-08-2009

Studijų kokybės vertinimo centras

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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	Example of Diploma and diploma supplement
2	H-indexes of teaching staff

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

The ASU is a study institution offering higher education in the fields of biomedical, technological, and social sciences.

One of the advantages of the host Faculty is that after completing second level of the programme under evaluation *Agroecosystems*, the students have the potential to proceed with PhD students on-site.

The name and the learning outcomes of the Programme seem to be not entirely compatible with each other. International evaluation of the program is being conducted for this Programme the first time.

1.4. The Review Team

The review team was completed according to *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 25th November 2016.

- 1. **Assoc. Prof. dr. Trine Johansen Meza**, Head of the Dep. of Health Sciences, Kristiania University College, Norway.
- 2. **Prof dr. Angéla Anda,** Head of the Dep. of Meteorology and Water Management, Georgikon Faculty, University of Pannonia, Hungary.
- 3. **Prof. dr. Aleksandar Jovanovic (team leader)**, Vice-rector for International relations, Professor of Faculty of Medicine, University of Pristina/K.MITROVICA, Serbia.
- 4. **Dr. Kęstutis Skrupskelis,** biologist at Institute of Ecology of Nature Research Centre, Lithuania.
- 5. Vygailė Pundzaitė, Bachelor student at Vytautas Magnus University (field of Life Sciences),

II. PROGRAMME ANALYSIS

2.1. Programme aims and learning outcomes

The evaluated Program is considered as a renewal of traditional study programmes of crop growing and/or crop production, integrating agronomy and ecology fields. The Programme aims and learning outcomes (LOs) are clearly defined and publicly accessible. The intention of the Programme is to educate graduates that can perform academic and meet professional requirements and public needs. Labour market confirmed the need for graduated students, as each of them was in employment on the date of completion of his/her study (2015). Direct employment offers for graduated students are greater than the number of performed graduates. The newly established

Programme is mostly based on the academic requirements, public needs and the needs of the labour market.

According to the Self-evaluation Report (SER, pg. 7), the key aim of the *Agroecosystem* Programme is to prepare highly qualified graduates in ecology that are capable of developing agroecosystems of varying intensity, increasing its sustainability and productivity, managing ecologic processes in agriculture, applying knowledge in scientific research and practise. The LOs of the Programme are consistent with the type and level of studies. They were described in the 5 categories (e.g. Knowledge and Its Application, Abilities to Carry Out the Research, Special Abilities, Personal Abilities), required by the LQF level 7 descriptors.

The Programme aims and LOs (publicly opened on the website of ASU) are partly consistent with the programme qualifications offered. The expert panel find that the actual programme name (*Agroecosystems*), content and qualifications offered do not fully match to LOs as there is not enough ecology in the Programme.

The social partners in the Programme Committee participated in drafting the LOs. During the site-visit, it was found that employers would also appreciate more skills in connection with building personal relationships (social partners including farmers) for the students and in the expert panels opinion if would beneficial that the employers are more involved in drafting the LOs.

The expert panel find that the LOs focus mostly on knowledge but not that much about practical work. Missing study areas elements of living (animals) and non-living environment (water, atmosphere) from ecological side and economy from agricultural side, limit implementation of programme objectives. More balanced LOs completed with ecologic and economic aspects would be recommendable.

The name, the content of the Programme and its LOs are not fully compatible with each other. The qualifications offered, Master of Ecology should contain all environmental fields (water, atmosphere, animals) beyond crops and soil.

2.2. Curriculum design

The Programme and the detailed topics of the study subjects are reviewed yearly, taking into account the opinion of stakeholders, students and lecturers. The expert panel found that the scope and content of the Programme is not sufficiently presented and explained in the subject descriptions of the Programme; see also later the subject outlines (Methodology of Extension, Organic farming, Crop communities and their investigations, Plant food product quality and safety, Weed ecology, Soil resources and GIS).

To maintain constant student's load, the number of subjects, their credit and total credit per semester is regulated by the Faculty Council. The Programme consists of 120 credits, and there are no more than 5 subjects per semester. The volume of study point given per year are 60 ECTS and the credits allocated to the master thesis are 30. Formally, both the study Programme and curriculum design meet legal requirements, public and labour market needs. High problematic or innovative scientific level subjects, covers 67 credits, including three 6-credit elective subjects. Proportion of independent work significantly increased above 73%, while classroom work accounted only for 26% from 2015/2016. Lecturers use all kinds of methodology (seminars, labs, practicums, consultations, team and group works, tests).

It seems that the Moodle is not very popular among lecturers. The students would welcome more practical procedures. The alumni and social partners also opted for more practical classes and skills.

The university submitted in the SER 19 detailed subject descriptions. For some of these, the topic outlines are more complete (Environmental Protection, Modelling of Agroecosystems, Plant protection in organic farming, Soil tillage systems and environment) than others, giving an overview of the subject. For other subject descriptions, only a brief outline is given, such as in the subject descriptions for Methodology of Extension, Organic farming, Crop communities and their investigations, Plant food product quality and safety, Weed ecology, Soil resources and GIS. The expert panel finds that this gives an insufficient overview of the content of the subjects. In addition to above quoted subject outlines, however, both the format and length of the subject outlines were enough to review indicated LOs.

Similarly, to the teaching methods applied, description of study subjects with exception of above cited ones are appropriate to achieve LOs. The introduced subject LOs, teaching methods, assessment criteria corroborate legitimacy of a second level programme. Parallel with properly presented subject outlines, considerable insufficiencies – such as too short subjects descriptions, and missing study fields such as water ecology, animals and economic aspects – became noticeable on the curriculum. The Programme should be revised carefully, introducing with the above specified missing study fields. Integration of economy (financial management) should be included due to close relation between economy and agronomy. Information related to elements of non-living environment (mainly water) is also very limited in the Programme.

Analysis showed only acceptable amount of overlap between subjects'contents (for example: mineral nutrition and chemical cycles in Agrobiological Potential of Plants, Agroecology and Plant and Environmental Chemistry; soil properties in soil related subjects). The expert panel

conclude that the subjects related to soil and some crops dominated this curriculum. Majority of agronomy related subjects reflect up-to-date achievements in agronomic technologies.

It's very laudable that every graduate was in employment on the date of completion of their studies (employed as agriculture-, forestry- and fishery specialists, sellers and advertising and marketing professionals).

2.3. Teaching staff

The Programme belongs to the Faculty of Agronomy, and most of the teaching staff is from this Faculty. During the last academic year, there were 5 professors joining the Faculty of Agronomy and they are included in the basic University staff. Although there are two professors above 60, teaching staff turnover (associate professors of preparedness) is able to ensure adequate provision of the Programme. The University staff number is stable as hardly changed over the last five-year period (2011-2015). Structure of academic staff by the age groups is acceptable. Suggested student-lecturer ratio of Biomedical Sciences is equal to 12:1, for the *Agroecosystems* Programme the ratio is 10.2:1. The number of permanent positions according to workload of the Programme is about 2 persons (1.9).

Annual pedagogical load of teaching staff in the Programme totalled 1581 academic hours – 27.3% (431 hours), 55.1% (872 hours) and 17.6% (278 hours) for professors, associate professors and lecturers, respectively. The accounted pedagogical workload for all subject programmes is 16.7%. Structure of working time (pedagogical, scientific and organisational work) depends on the person's position. The higher the position, the less the pedagogical work and the expert panel find that this is acceptable. The evaluated proportion of teaching-research work is 70:30. Relatively low ratio of research activity may explain weak publication performance of some lecturers. University tries to regulate the actual work structures.

In spite of missing information about research projects' details in the CVs of some of the teaching staff, the expert panel find that it is not substantiated the whole teaching staff is equally active in international project implementation and research. Almost half of the staff has 1 or no publication with impact factor during the investigation period. Not surprisingly, the average Hirschindex of the staff is low somewhere close to 2. However, there are some professors with much better publication activity. During the site-visit, this matter was discussed with the teachers and the expert panel conclude that most of the teaching staff should improve their scientific performance with increasing their activity in international research.

Aside from unevenly distributed research activity of the teaching staff, qualification and number of lecturers are adequate to ensure learning outcomes. A comprehensive review of

participants' publication list showed predominance of topic of soil and some agricultural crops. However, only a limited number of publications related directly to ecology was found. During the evaluation period the lecturer's staff took part in seven international and about 50 local research projects.

In the period considered, the lecturers published 66 articles in ISI WOS database (SER, pg. 16). The Hirsch-index of most of the teaching staff is low, and some of the teaching staff published only one paper with IF in the investigation time period. The Faculty hosted 26 lecturers from 5 countries (Belgium, Brazil, Spain, Poland and Turkey) between 2009 and 2016. At the same time, 13 lecturers from the University travelled abroad by ERASMUS Mobility Programme. Participation of University staff in national and international conferences, their presence in different societies is acceptable. The teaching staff's research results should be improved in accordance with the already adopted teaching staff's requirements. These requirements include that the teaching staff have to publish in international journals. Their present performance is far from these requirements. The expert panel found that the staff is already aware of this fact.

The panel is convinced that the pedagogical skills of lecturers are adequate. The teaching staff has the possibility to attend courses to increase their competencies. More pedagogic courses serving as a basis for developing staff skills and expertise would be welcome.

2.4. Facilities and learning resources

Funds financed modernised lecture rooms and laboratories are available in different buildings of the Faculty. Premises and the teaching equipment for studies and practises are very good. The Faculty owns an experimental station to carry out field experiments from late 70's. This long-time series observation provides good background for second level students, who have only two academic years with one growing season (without possibility of trial's repetition) during their study duration. The buildings of the Faculty have been reconstructed and their labs were installed with up-to-date equipment. They may be useful to attract more students and research funds and for collaboration with enterprises. There are outside facilities for implementation of practical, research work and thesis preparation.

The expert panel finds that the potential of the facilities has not been implemented fully in the teaching process of the Programme. The reason might be the that the laboratories has just been improved including purchase of new research instruments. Utilization of the facilities should be extended by involving outside co-operating partners such as research institutions and practical companies.

Student's needs are supported by four reading rooms in the library, providing seats for 154 persons. University has also an "electronic library". Programme lecturers can submit additional electronic themes through virtual learning environment of Moodle. The students may use about 3,000 of e-books and 22,000 scientific journals. The students have also got access from outside the library.

2.5. Study process and students' performance assessment

Admission requirements are clearly defined by state rules. Priority is given to applicant graduated from topic of the closely related first level studies and earlier achievement's quality. Bridge courses are also available (1 paid semester). Comparison of admitted and applied students show competition in majority of the years. Annual ratio of state funded and own financed students is also variable. Students get opportunity to participate in ERASMUS programmes but only a limited number of students use this option. Excellent students are encouraged to participate in annual competitions or conferences (organised by the Lithuanian Academy of Sciences; Young Scientist etc.), and the winners are awarded with scholarship/premium.

Curriculums and examination sessions are implemented in accordance to Dean's timetables prepared for the entire semester. Classroom hours are only organised between Thursdays and Fridays (from 8 to 11 academic hours). The student's load in the examination periods was distributed evenly. Weighted mean of the exam grades of second level students in the Programme varied from 6.94 to 9.49. Efficiency of student's training (ratio admitted and finished students) differed among academic years (50-100%) and the difference is explained by changed number of state funded positions. The reasons for student's dropout are of personal nature. The mean loss of students was 18% for the 5-year period (SER, pg. 20). The expert panel could not find explanation for exceptional (0%) dropout results in several academic years.

In order to evaluate if the students have achieved the LOs of the study program, the evaluation criteria are adjusted to evaluate the student's knowledge and abilities (competences). The evaluation system is an accumulative system and the final grade consists of two parts; the grades of interim work and the result of the examination. The larger percentage belongs to exam (50–80 percent). The remaining part is to practical and independent work (20-50%). Description of the evaluation criteria is laid down in the subjects' description. Requirements are introduced to students before the semester outset.

Halfway through the semester, the Deans' Office provides a report of the immediate and interim assessment of the students' knowledge in all the subjects of that study period (0-1-2-point system). Report is discussed and contains personal interview with the students. In the opinion of the

expert panel, this is a good system for discussing the regression and achivements of the student and is feasible when there is not too many students in a programme. Partial details on achievements are electronically opened for the students and they are allowed to discuss their results with their lecturers as well. The students can appeal in case of disagreement.

The thesis is an independent work of the student in which he/she demonstrates his/her ability to define research issue in his/her field of study, to conduct research (use of relevant research methods), to collect related scientific publications, to evaluate and analyse obtained data, and to provide conclusions on scientific basis. It seems like the students are not adequately informed about the preparation of master thesis as the panel found that the thesis lack the chapter named discussion which would show their creative thinking. There are not given any specific assessment criteria for the master thesis in the subject description (Annex 1), but in the learning methods it is stated that the students should analyse and discuss the results of the research. In the expert panel's opinion, this shows that the teaching methods have not been followed up properly. In some cases, the evaluation panel found only limited amount of relevant scientific statistical methods in addition to t-probe in the thesis. The above mentioned shortcomings of the thesis, contradict the Faculty's intention to expect published research work before thesis defence. During the site-visit, the staff demonstrated the existence of up-to-date statistical programme packages which are taught during lectures. The use of these statistical programmes is not reflected in students' master thesis.

Thesis is peer-reviewed by the supervisor and two independent persons appointed by the Department. Final evaluation of the thesis can be defended publicly before the Evaluation Committee. To have at least one scientific publication is also a requirement.

In accordance to University Senate's decision, every student has to publish scientific article before defending his/her thesis. Intention of organiser is very laudable to expect research work from the second level student. Students are also encouraged to participate in ongoing research.

ERASMUS student exchange programme is not very popular among students, as there was no person attending to this. The possible reason might have been that every student is working during his/her second level studies.

Information related to all aspects of University training, scholarships included, are accessible for every student from the University website and Dean's Office. In the course of the semesters, consulting hours are also available keeping by lecturers on study-related issues. E-mail addresses of lecturers and assessment system are also publicly available on the University website.

Career Centre website mediates information in the areas of job search and career from the employers to students and back. This Centre helps the students to prepare for interviews with employers and other carrier related issues. A virtual job search database is also included to the

website. Spiritual and Physiological Centres of the University offer psychological, sports, health, cultural and other supports. The expert panel find this satisfactory.

Scholarships are granted on a competitive basis to the best-performing students based on study results achieved during previous semester. Students with financial difficulties and disabled ones may receive social grants.

All students of the Programme can be accommodated in ASU residences on demand.

2.6. Programme management

Responsibilities for decisions of the Programme implementation are clearly allocated among different University levels. There is an operational Programme Committee (headed by the Chairman) appointed by the Council of the Agronomy Faculty. The aim of this Program Committee is to control competencies specified in the Programme, as well as detailed subjects' descriptions.

Employers' representative is responsible for describing the changing needs of employers and stakeholders. Student's representative is responsible for the integration of their expectations into the Programme. Different University levels may guaranty the quality control of University programmes.

University approved an Internal Study Quality Assurance System in 2012 containing quality assurance principles, specific measures and responsibilities for the implementation of study programmes (assessment criteria and indicators). There is a separate official record for external social stakeholders, comprising the procedures of their implementation in study quality assurance.

The content of study subjects is certified by Programme Committee every 2 years. More detailed assessment is carried out every 6 or 3 years by SKVC. Content of methodological publications used for education are reviewed one by one. Study books are additionally approved in the Central Methodical Committee of the University.

Quality control system supports appropriate information about the Programme. Analysis of data is continuous in order to improve the training quality of the University programme. Stakeholders are included in several different committees/panels, such as the Board of the Agronomy Faculty, different Faculty committees and the Study Programme Committee to assure check-up of the whole programme operation. Stakeholders may act as invited lectures, they take part in the process of selecting thesis topics, and they may also participate in Master Thesis Assessment Committee. This participation assures the feedback from stakeholder side. Student's feedback operates in committees as they are members of these panels. During the site visit, the expert panel found that even though the stakeholders are involved in different panels and

committees, the feed-back from the stakeholders does not seem to be followed, showing that even if the systems are well described, they do not work satisfactorily.

Although different steps of internal quality assurance are allocated, the efficiency of Programme management may require some improvements as the panel found limited feedback among participants of different programme groups (lecturers, students). Students and alumni are not completely informed about all aspects of quality assurance, as the students were not aware of the Study Programme Committee.

III. RECOMMENDATIONS

- 1. The University should revise the curriculum in a way that ensures that the content of the Programme aligns with the title and learning outcomes.
- 2. When revising the Programme, missing study fields should be included (e.g. economy, financial management in relation to agricultural production).
- 3. The proportion of non-living environment in addition to soil should be extended in the curriculum.
- 4. Research performance of the staff members must be improved (ISI publications, international project work) to meet the new standards.
- 5. The student's master thesis should be improved by using statistical methods and by that the students should discuss their findings in relation to the scientific litterature.
- 6. Extend the utilization of the facilities by involving outside co-operating partners such as research institutions and practical companies.
- 7. Ensure that the quality assurance procedures of the programme lead to improvement of the Programme.

IV. SUMMARY

The *Agroecosystems* Programme educates graduates with a master degree that there is an actual need for in the labour market. The curriculum design meets the formal requirements of second level education when it comes to number of credits, credits allocated to the master thesis and so forth. The curriculum has to be revised to ensure that the students will achieve the learning outcomes of the Programme. The expert panel found that there is only a limited offer of ecology related subjects included to the curriculum, and the curriculum should thereby be revised to include more ecology and economy related subjects. The qualifications offered, Master of Ecology, should contain all environmental fields (water, atmosphere, animals) beyond crops and soil. Both students, alumni and social partners opted for more practical work in the Programme, to improve the graduate's practical skills.

There are newly accepted lecturer's research requirements also corroborate the need of improving the scientific performance of the teaching staff, as nearly half of the staff members possess low number (0 or 1) of papers with IF for the last 5-year period. The expert panel found that the teaching staff are already aware of this fact. For the teaching staff, it is important that they are involved in research projects and the management will have to follow this up. Aside from variability in research performance of the staff, in most cases the qualification (PhD holders) and number of lecturers are adequate to ensure learning outcomes.

Premises and the teaching equipment for studies and practises are sufficient for the Programme implementation. The buildings of the Faculty have been reconstructed and their labs were installed with up-to-date equipment. They may be useful to attract more students and research funds and for collaboration with enterprises.

It seems like the students are not adequately informed about the preparation of master thesis as the expert panel found that the thesis lack the chapter named discussion which should show their creative thinking, and the expert panel also found lack of relevant scientific statistical method and this contradicts to the Faculty intention to expect published research work before thesis defence. In some of the thesis, the panel also found only limited amount of relevant scientific statistical methods in addition to t-probe.

The University's quality assurance system is not that efficient even if is well described as feedback given by alumni and stakeholders have not been implemented. The expert panel also found that the students were not well informed about the quality assurance system.

V. GENERAL ASSESSMENT

The study programme *Agroecosystems* (state code – 621C18003) at Aleksandras Stulginskis 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	3
5.	Study process and students' performance assessment	2
6.	Programme management	2
	Total:	13

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

Grupės vadovas:

Team leader: Assoc. Prof. dr. Trine Johansen Meza

Grupės nariai:

Team members:

Prof. dr. Angéla Anda

Prof. dr. Aleksandar Jovanovic

Dr. Kęstutis Skrupskelis

Vygailė Pundzaitė

^{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.

ALEKSANDRO STULGINSKIO UNIVERSITETO ANTROSIOS PAKOPOS STUDIJŲ PROGRAMOS *AGROEKOSISTEMOS* (VALSTYBINIS KODAS – 621C18003) 2017-02-06 EKSPERTINIO VERTINIMO IŠVADŲ NR. SV4-35 IŠRAŠAS

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V. APIBENDRINAMASIS ĮVERTINIMAS

Aleksandro Stulginskio universiteto studijų programa *Agroekosistemos* (valstybinis kodas – 621C18003) 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	3
5.	Studijų eiga ir jos vertinimas	2
6.	Programos vadyba	2
	Iš viso:	13

- * 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

Studijų programa *Agroekosistemos* rengia magistro laipsnį turinčius specialistus, kurių poreikis iš tiesų jaučiamas darbo rinkoje. Programos sandara atitinka formalius antrosios studijų pakopos reikalavimus kreditų skaičiaus, magistro darbui suteikiamų kreditų ir kt. aspektais. Reikėtų peržiūrėti programos sandarą ir užtikrinti, kad studentai pasiektų programos numatomus studijų rezultatus. Ekspertų grupė nustatė, kad studijų programa siūlo labai ribotą su ekologija susijusių dalykų skaičių, todėl reikėtų peržiūrėti programos sandarą ir įtraukti daugiau su ekologija ir ekonomika susijusių dalykų. Suteikiama ekologijos magistro kvalifikacija turėtų apimti visas aplinkos sritis (vandenį, atmosferą, gyvūnus), o ne tik pasėlius ir dirvožemį. Studentai, absolventai ir socialiniai partneriai pageidavo daugiau praktinių dalykų studijų programoje, siekiant geresnių absolventų praktinių įgūdžių.

Naujai priimti reikalavimai dėstytojų tiriamajai veiklai taip pat patvirtina poreikį gerinti personalo mokslinių tyrimų rezultatus, nes beveik pusė darbuotojų per pastaruosius 5 metus yra paskelbę mažai (nei vieno arba vieną) straipsnių leidiniuose su citavimo indeksu. Ekspertų grupė nustatė, kad dėstytojai jau žino šį faktą. Svarbu, kad dėstytojai vykdytų tyrimų projektus, tad vadovybė turėtų to siekti. Nekalbant apie personalo tiriamosios veiklos rezultatų nepastovumą, daugeliu atveju dėstytojų turima kvalifikacija (daktaro laipsnis) ir skaičius yra tinkami studijų rezultatams užtikrinti.

Patalpos ir studijų bei praktikos įranga yra pakankamos studijų programai įgyvendinti. Fakulteto pastatai buvo rekonstruoti, o laboratorijų įranga atnaujinta. Materialieji ištekliai gali

padėti pritraukti daugiau studentų ir lėšų tyrimams, taip pat praversti bendradarbiaujant su imonėmis.

Panašu, kad studentai nėra tinkamai informuojami apie magistro darbo rengimą, nes ekspertų grupė pastebėjo, kad darbuose trūksta tyrimo rezultatų aptarimo skyriaus, kuriame būtų demonstruojamas studentų kūrybinis mąstymas. Taip pat ekspertų grupė pastebėjo, kad mažai taikomi atitinkami mokslinės statistikos metodai, o tai prieštarauja fakulteto norams, kad tiriamasis darbas būtų publikuotas moksliniame žurnale prieš magistro darbo gynimą. Ekspertų grupė nustatė, kad kai kuriuose baigiamuosiuose darbuose be t-zondo metodo taikomas labai ribotas tinkamų mokslinės statistikos metodų skaičius.

Universiteto kokybės užtikrinimo sistema nėra veiksminga, net jei puikiai aprašyta, nes nebuvo atsižvelgta į absolventų ir socialinių dalininkų pastabas. Ekspertų grupė taip pat sužinojo, kad studentai nebuvo gerai supažindinti su kokybės užtikrinimo sistema.

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III. REKOMENDACIJOS

- 1. Universitetas turėtų peržiūrėti studijų programos sandarą ir užtikrinti, kad programos turinys atitiktų programos pavadinimą ir numatomus studijų rezultatus.
- 2. Peržiūrint studijų programą, reikėtų įtraukti trūkstamas studijų kryptis (pvz., ekonomiką, finansų valdymą, kiek tai susiję su žemės ūkio gamyba).
- 3. Reikėtų didinti negyvosios aplinkos tematikos dalį programos turinyje, lyginant su dirvožemio tematikos dalimi.
- 4. Būtina gerinti personalo tiriamosios veiklos rezultatus (ISI publikacijos, tarptautinė projektinė veikla), norint atitikti naujuosius standartus.
- 5. Reikėtų didinti studentų magistro darbų kokybę, taikant statistikos metodus ir studentams siejant gautus tyrimų rezultatus su moksline literatūra.
- 6. Plėsti materialiąją bazę, bendradarbiaujant su išorės partneriais, pvz., tyrimų institucijomis ir imonėmis.
- 7. Užtikrinti, kad studijų programos kokybės užtikrinimo procedūros padėtų tobulinti programą.



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)