



STUDIJŲ KOKYBĖS VERTINIMO CENTRAS

**VYTAUTO DIDŽIOJO UNIVERSITETO
STUDIJŲ PROGRAMOS *APLINKOTYRA IR EKOLOGIJA*
(612F70001) VERTINIMO IŠVADOS**

**EVALUATION REPORT
OF *ENVIRONMENTAL SCIENCE AND ECOLOGY*
(612F70001) STUDY PROGRAMME
at VYTAUTAS MAGNUS UNIVERSITY**

Grupės vadovas: Prof. dr. David Eastwood
Team leader:

Grupės nariai: Prof. dr. Judit Padisak
Team members:
Prof. dr. Kalev Sepp
Lina Šleinotaitė-Budrienė
Armandas Pisarskis

Išvados parengtos anglų kalba
Report language - English

Vilnius
2014

DUOMENYS APIE ĮVERTINTĄ PROGRAMĄ

Studijų programos pavadinimas	Aplinkotyra ir ekologija
Valstybinis kodas	612F70001
Studijų sritis	Fiziniai mokslai
Studijų kryptis	Aplinkotyra
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	Aplinkotyros bakalauras
Studijų programos įregistravimo data	2009-08-17, Nr. 1-73

INFORMATION ON EVALUATED STUDY PROGRAMME

Title of the study programme	Environmental science and ecology
State code	612F70001
Study area	Physical sciences
Study field	Environmental Sciences
Kind 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 of Environmental Sciences
Date of registration of the study programme	2009-08-17, No. 1-73

© Studijų kokybės vertinimo centras
The Centre for Quality Assessment in Higher Education

CONTENTS

CONTENTS	3
I. INTRODUCTION.....	4
II. PROGRAMME ANALYSIS	5
1. Programme aims and learning outcomes.....	5
2. Curriculum design	6
3. Staff	7
4. Facilities and learning resources	8
5. Study process and student assessment.....	9
6. Programme management	11
III. RECOMMENDATIONS	13
IV. SUMMARY	14
V. GENERAL ASSESSMENT	16

I. INTRODUCTION

The procedures of the evaluation of Vytautas Magnus University (hereafter the University; VMU) Bachelor's Study Programme Environmental Science and Ecology (hereafter the Programme) were initiated by the Centre for Quality Assessment in Higher Education of Lithuania nominating the external evaluation peer group formed by the head, professor David Eastwood (University of Ulster, N.Ireland), professor Judit Padisak (University of Pannonia, Hungary), professor Kalev Sepp (Estonian University of Life Sciences, Estonia), Lina Šleinotaitė-Budrienė, employer representative (Lithuania) and Armandas Pisarskis, student representative (Vilnius Gediminas Technical University, Lithuania).

For the evaluation of the study programme, the documents regulating evaluation were used (Procedure of the External Evaluation and Accreditation of Study Programmes, Methodology for Evaluation of Higher Education Study Programmes, General Requirements for the Degree-awarding First Cycle and Integrated Study Programmes, Description of VMU Examination Sessions and Final Work Education and Defence Organisation, Study Programme Committee Regulations).

The basis for the evaluation of the study programme is the Self Evaluation Report (hereafter SER), written in November 2013, its 5 Annexes, and the site visit of the expert group to VMU on 6 May 2014. The SER was evaluated as comprehensive and useful, including the self-evaluatory analysis of the programme's current strengths and weaknesses.

The visit incorporated all required meetings with different groups including the Dean and Vice Deans of the Faculty of Natural Sciences, the Head of the Department of Environmental Sciences, staff responsible for the preparation of the SER documents, teaching staff, students, graduates and employers. The expert team evaluated various support services (laboratories, library, IT facilities), examined students' final works and various other materials. Any additional documentation requested was also provided.

After the expert team discussions and additional preparations of conclusions and remarks, preliminary general conclusions of the visit were presented. After the visit, experts met to discuss the contents of this report, which represents the expert team's consensual views.

II. PROGRAMME ANALYSIS

1. Programme aims and learning outcomes

The Programme aims and learning outcomes are adequately and clearly defined and are publicly accessible, both on the VMU website and in other VMU publicity materials. The SER defines the Programme aims and learning outcomes as, *“to acquire knowledge and develop practical skills required to perform environmental monitoring and assessment, analyse natural and anthropogenic environmental and climate changes, their impact on living organisms and human health, and to ground environmental impact mitigation measures according to the principles of sustainable development.”* The Programme aims and learning outcomes are therefore broadly compatible with other similar EU BSc. environmental science degree programmes.

The intended learning outcomes are consistent at both programme and subject levels and are congruent with current Lithuanian labour market demands. The Programme’s good graduate reputation in a currently largely unsaturated labour market and the graduates’ abilities to find positions accordingly to their education obtained represents a distinct Programme strength.

The range and complexity of the learning outcomes are appropriate for the study field and level of the Programme. Achievement of the intended learning outcomes corresponds to the preparation of universal environment specialists who are able to solve complex environmental problems according to the principles of sustainable development. The programme is interdisciplinary. Links between the subjects and their sequence, together with the infrastructure available for the running of the study programme promote the achievement of the intended learning outcomes within the duration of the studies.

The programme allows students to gain knowledge in integrated natural sciences (physics, chemistry, biology, geosciences) with focus on environmental problems and includes specific and integral courses on all the three spheres (earth/soil, water, atmosphere) which are crucial for environmental science. Socio-economic and management elements are also included. However, given the declared Programme aim to train universal rather than specialist graduates and the interdisciplinary manner of the studies, a Programme title of “Environmental Science” would be a better description of the content of the studies than the present title of “Environmental Science and Ecology.”

2. Curriculum design

The Programme content and study volume complies with the requirements for full-time BSc. University studies as indicated in Lithuanian legal acts and also complies with international practices. Although arguably more space might be devoted to integrative courses, nonetheless the current numbers and range of basic and specialized courses are sound, as are their semestral distributions. The volume of self study within the Programme is both regulated and sound. Despite the fact that both students and social partners interviewed would have liked to see more practical work in the Programme design, the current curriculum volume of practical work remains adequate.

Despite the pressures it places on teaching staff and material resources, the maintenance of a free student choice of final thesis topics is laudable, as is the fact that topic selection comes so relatively early in the curriculum.

Overall, the curriculum design is therefore adequate for attaining the learning outcomes and is satisfactorily organised. Laudably, the balance and flexibility of the Programme allow for both minor studies and support student mobility. The sequencing in which subjects are studied is consistent.

The curriculum design does however offer some modest scope for harmonization. For example:

- Plant sciences are at present restricted to classical plant physiology and insight to plant phylogeny, systematics and ecology are limited, thus jeopardizing the aim to enable students to deal with environmental monitoring issues. Arguably, this could be done at the expense of courses more marginal for learning outcomes (e.g. *Cell biology*);
- Greater inclusion in the relevant courses is needed of EU frameworks and directives (e.g. Water Framework Directive) as well as more emphasis on legislation - especially considering the growing significance of legislation issues in the development and application of environmental monitoring systems and technologies;
- The contents of some courses are currently slightly dated (e.g. the course *Statistics in environmental science and biology* could focus more on basics of R-programming environment and multivariate methods and the *Water Ecology* course no longer reflects the latest achievements in science in that area).
- Repetitiveness of some topics in different courses was noted by the students interviewed during the review visit, and is also apparent in some course contents (e.g. items of basic chemistry in *Environmental Geology*).
- Although there were many good aspects to the final thesis presentations reviewed, there were also a number of consistent concerns, notably the absence of adequate national and

international contextual discussion of results and correctly referenced bibliographies, both of which suggest that a more comprehensive generic research methods element should be introduced.

3. Staff

The number of teachers delivering the programme is 27. In compliance with the regulations for University programmes, the majorities of the staff who deliver the Programme are professors or associated professors (professors – 22%, associated professors – 44%). The expert team found a balanced age and gender structure of the Programme staff. The staff experience is adequate to manage and deliver the Programme.

VMU operates a staff appraisal and evaluation system motivating personal growth and development, together with important evaluation procedures of research performance criteria. At the Faculty level, staff competence is evaluated according to the main criteria of scientific publications and abilities to participate in international projects. Although remarkable progress has been achieved in recent years, currently most, but by no means all, of the staff's scientific publications continue to be in local scientific journals and more attention is needed for distinction of first- and co-authored publications. However, overall, the reasonably high research output of the Programme staff, as well as their efforts dedicated to the development of study materials, is praiseworthy.

The most active staff conduct research in the environmental science field with involvement of the most motivated students who, even in early stages of their studies, participate in research projects and elaborate their final thesis. In most cases the teaching staff of the programme is involved in research directly related to the study programme being reviewed. However exceptions exist (especially *Water ecology*, but to some extent also *Atmospheric physics and climatology*, *Soil ecology*) and need attention.

Of particular importance for teachers' professional development is active participation in the ERASMUS programme. During interviews with the academic staff, the evidence suggests that mobility of staff is limited. As the expert team found during interviews, the English language knowledge level of the staff largely supports international contacts, research output and general study quality. For the staff, and especially for the youngest lecturers, time and teaching loads therefore appear to be the major mobility/professional development constraints and more temporal opportunities are needed to improve their pedagogical skills, and to implement innovative teaching / study methods into everyday practices.

4. Facilities and Learning Resources

The Programme utilizes premises and facilities of both the Faculty of Natural Science and the Department of Environmental Science, and the available space is sound for the running of the Programme. Classrooms are well-equipped. Although several students commented on the overcrowding in some practical classes, the number (11) of laboratories is sound and additional spatial development is already in hand using premises at the Kaunas Botanical Garden of VMU.

Teaching and learning equipment (laboratory and computer equipment), as well as teaching material (textbooks, books, periodical publications, databases) are generally very good and are easily accessible. Although some of the students interviewed during the review visit would have liked more multiple copies of the main course-study books, and additional Programme-related scientific textbooks in English, nonetheless library stocks in terms of diversity are excellent.

Significant provision of modern facilities and equipment is currently available for student thesis work and for academic staff research work and it is very evident that these facilities are relevant to the research directions of Department. Considerable recent improvements have taken place through the effective and efficient use of grant income and European Union financial aid programmes. However, given the diversity of the newly purchased equipment, the two technicians presently employed appear insufficient for the longer term maintenance of this now excellent infrastructure.

Although the current provision of university equipment is excellent, the opportunities for the use of additional private sector equipment and other public sector resources are restricted by limited placement opportunities and, in this context, additional use of alumni and social partners would be valuable.

In summary, with the help of EU funds, laboratory equipment has been extensively renewed and modernised over the last four years and conditions have been significantly improved for laboratory work and research activities. The Department and Faculty should be congratulated on their achievements. However, more focus is now needed on optimising laboratory organisation for equipment use, notably in the allocation of technical services. Additionally, using alumni and social partner's commitments, more diverse practices in terms of types of organisations and types of practise outside university would also be of significant additional value.

5. Study process and student assessment

The admission requirements are well-founded and meet both legal requirements and VMU admission regulations. Applicant qualifications are assessed on a competitive formula driven basis which takes into account mathematics, biology, chemistry and the Lithuanian language examination results.

The programme is well advertised, with public information available through the VMU website, study fairs, open days. Quota limited funding is state funded, but VMU is not currently providing additional scholarship funding, and self-funded students constitute only c. 17 percent of the total admission. Given decreasing student numbers and current Lithuanian demographic trends, increased marketing efforts towards secondary schools should therefore be explored, together with a SPC strategic analysis of the current student rationales for their choice of this particular Programme.

The study process meets legal requirements and ensures adequate provision of the Programme for the achievement of the learning outcomes. Scheduled details of the Programme are provided on the VMU intranet and the Faculty bulletin board. There is adequate inherent schedule flexibility with module change opportunities available within the first semester month. Examination sessions are organised on a semester basis and distributed evenly over the examination period. Student progress is monitored at Decanal and Head of Department levels, re-sits are permitted and drop out rates are monitored and appear to be low.

Students organise their studies in the form of individual study plans. They arrange such plans themselves for each semester choosing from the list of optional subjects. There is also a free choice of final Bachelor thesis topics and supervisors and initiation of research begins early in the Programme. However, this freedom of choice imposes strains on adequate resourcing in terms of both staff and material resources. As a potential consequence of this, deficiencies were found in both the structuring and production of several final theses examined during the review visit, (e.g. absence of proper Bachelor thesis title setting, adequate discussion of results).

Opportunities exist for participation in student mobility programmes, and the mobility rates (outgoing students and incoming students) are good and have increased substantially during the last year mainly due to decision to include 5 study field courses in the first year of curriculum. The Faculty of Natural Science has agreements with 30 universities in 9 countries.

Social student support is good. There are internet websites of student clubs and organisations and administration support, for example through the Finance Office and the Career Planning Office. However, academic support is rather more patchy. Support is readily available from teaching staff at course level, but is less formalised at Programme level. There is no students 'Advisor of Studies' system, where students maintain both pastoral and academic contact with the same Advisor throughout their period of study.

Teaching staff widely utilise the Moodle VLE for publishing study subject material and for information distribution. However, the range of learning opportunities afforded by the Moodle system for both interactive teaching and distance learning have not yet been fully realised. Students interviewed during the review visit expressed the view that teaching methods are quite old and, although the VMU Centre for Innovation and Teaching provides training courses in modern pedagogic developments, the current uptake has been limited.

Student assessment criteria are clear, transparent and readily available on the Moodle VLE. Assessment requirements are scheduled evenly and students interviewed during the review visit expressed satisfaction with their overall work and assessment loads. The assessment and organisation of the Bachelor thesis defence is clear and communicated to students.

Academic staff interviewed during the review appeared hazy on the issue of plagiarism, but believed that it does not yet appear to constitute a major issue. However, although digital plagiarism software is readily available to staff, its use often appears to be either absent or inconsistent. Students interviewed confirmed that no great emphasis had been placed on plagiarism, for example through plagiarism discussions/tutorials.

Programme graduate employment is difficult to establish due to lack of definitive data. Despite the SER group's admission that "the careers of VMU graduates was observed in a rather unstructured way", no clear plan has been presented as to how improve this. However, data from the most recent on-line graduate surveys shows 50 % of Programme graduates choosing Master studies, with a further 30% employed, but only two thirds of these according to the Programme speciality obtained. Employers and graduates met by the review team were positive about the need for such a Programme, but also suggested areas for improvement, notably additional practical contacts such as more placements with potential employers.

6. Programme management

Responsibilities for decisions and monitoring of the Programme are clear and are wholly congruent with VMU Study Regulations and Study Programme Update Policy. Currently, quality assessment, assurance and upgrading of the Programme is the responsibility of the Study Programme Committee (SPC) and implementation of the Programme is the responsibility of the Head of the Department of Environmental Sciences and the Board of the Faculty of Natural Sciences.

Involvement of students, alumni and social partners in the management of the Programme is however currently limited. The SER team included only one student - a PhD student, and no direct alumni or social partner involvement. Similarly, the current SPC involvement of students, alumni and social partners is at best obscure. The SER notes that VMU is currently in the process of reorganising the administration of programmes, and it appears as if the role of the SPC is being enhanced and the numbers of students and social partners are to be increased. However, at the time of the review visit this enhancement process appeared to be still at an early stage of development, with restricted student and social partner inputs. For example, students interviewed were unaware of their SPC representation; as were all of the social partners interviewed.

At an institutional level, the VMU Centre for Quality and Innovations (CQI) currently monitors the internal quality assurance of programmes on a two year basis but, with respect to this specific Programme, information and data on the implementation of the Programme and outcomes does not appear to be collected, collated and analysed systematically. Students and social partners involvement in Programme renewal remains largely informal. Perhaps as a consequence of this, there were no companies or institutions funding places in the Programme, thus ensuring graduate employment.

The chairmanship role on the SPC has recently been devolved from Head of Department level to active part of teaching staff level, and the SPC is responsible for Programme evaluation processes on at least an annual basis. However SPC meeting protocols appear to be on a relatively informal, with information and discussion on Programme content, aims and learning outcomes, Programme analysis in relation to proposals from staff, social partners and students all appear to operate on a largely ad hoc basis. For example, no minutes of SPC meetings detailing either discussions on Programme ethos and potential Programme developments, or resulting in

Programme action sheets detailing either specific timelines or specific individual responsibilities were available to the review team.

On-line anonymous student questionnaires are organised on a course, rather than on a Programme, basis. Course teachers and the Head of Department are presented with the outcomes of these questionnaires, which focus on teaching quality at individual teacher/course level. However, according to the students interviewed during the review visit, current processes of formal feedback to students on questionnaire results, or on any ensuing outcomes should be better communicated to them.

At the individual course teacher level, questionnaire feedback from students is used to inform teachers on the quality of their teaching. Similarly, this feedback does offer the SPC information on which to evaluate and improve the Programme. However, some form of additional SPC-organised annual programme review would also be of benefit where student views are collected and regularly collated at the whole Programme level, as well as at the individual course, level, and with some formal system of outcomes feedback to students introduced.

Previous evaluations and, in particular the 2007 SKVC Evaluation Report have clearly been acknowledged and acted on – the currently greatly improved geoscientific content of the Programme and the emphasis now placed on transferable skills being obvious cases in point, and the Department and Faculty should be congratulated in creating the necessary flexibility and direction in order to achieve this. However evaluation processes need to be regular and ongoing in order to maintain market relevance and achieve stable student numbers and formal Annual Programme Review is essential.

The role of graduates and social partners in informing and enhancing programme development is currently similarly informal, and also somewhat unclear. The SER quotes as one of the strengths of the Programme management “the suggestions and proposals how to ensure quality of studies emanating from social partners“, but social partners interviewed by the review team could demonstrate no evidence of any such input. Similarly, the team could find no input from interviewed graduates. Both the employers and the graduates interviewed confirmed that they would willingly provide such input if requested, and that some form of annual employer/graduate/SPS panel meeting would form a useful forum within which such a process could take place.

Finally, an unexpected, but pleasant surprise for the review team came when one student said, and the others confirmed, that they “feel respected in the Programme” and they value the liberal, open-minded, friendly environment that VDU creates for them. This fact, taking together with motivated, open-minded, active students, loyal alumni and targeted social partners, and coupled with strategic planning and strong leadership has the undoubted potential to lead to a Programme with a strong and very real sense of positive identity.

III. RECOMMENDATIONS

1. In the light of the Programme content, the aims and learning outcomes and the qualification offered, to analyse and review the Programme title (with a view to dropping its “Ecology” designation).
2. To systematically involve targeted social partners and stakeholders in the study renewal process.
3. To ensure proper and adequate organisation of laboratory resources, allocating enough human and material resources as well as enough space.
4. To give greater prominence to the acquisition of practical skills introducing more diverse practices outside university by using more close contacts with alumni and social partners.
5. To introduce more systematic involvement of the student voice in Programme management, both in terms of collecting information *from* students (in SPC activity and in Programme-wide evaluation) and in disseminating action feedback *to* students.
6. To review current Programme content by updating courses (e.g. the course *Statistics in Environmental Science and Biology*), eliminating the repetitiveness of some topics in different courses (e.g. items of basic chemistry in *Environmental Geology*).
7. Improve the temporal conditions for greater staff mobility.
8. Improve final thesis quality (broader thesis topics lists, title setting, wider contextual analysis and discussion of results, use of references) and supervision process – possibly by means of a dedicated research methods course.
9. In tandem with VMU Centre for Quality and Innovations to introduce a special course on training methods and basic of pedagogies for young teachers (including teaching assistants).
10. To conduct regular competitive analysis of similar programmes and graduate placements analysis, as well as surveys on the detailed behaviour and motivation of present Programme students as well as their motives for choosing this particular Programme.
11. To consider the introduction of an Advisor of Studies system.
12. To consider a social partners/alumni forum.

IV. SUMMARY

Main positive quality aspects

Programme Aims and Learning Outcomes:

The interdisciplinary Programme is in tune with current Lithuanian employment market demands as witnessed by the Programme's good record of graduate employment.

Curriculum Design:

Despite the pressures it places on teaching staff and material resources, the maintenance of a free student choice of final thesis topics is laudable, as is the fact that topic selection comes so relatively early in the curriculum.

Staff:

The Programme staff is essentially well qualified, active researchers whose staff research profiles are clearly trending upwards.

In spite of the increasing pressures of research on teaching staff, the availability of teachers and the current staff-student relationships on the Programme remain commendable.

Facilities and Learning Resources:

Research grant income has been used to provide an excellent level of modern and available Programme equipment.

Other infrastructure, such as laboratories and the diversity of library provisions, is provided to a high level of standards.

Study Process and student assessment:

Opportunities for student mobility are good, with a good provision of relevant information and language training.

The range of the Programme's teaching and assessment methods is commendably broadly based and varied, paying good attention to the inclusion of generic transferable skills, such as oral and group work.

Programme management:

At the individual teacher level, course based feedback from student questionnaires informs both teaching course evaluation and annual staff appraisal.

Main negative quality aspects

Programme aims and learning outcomes:

The Programme title - given the declared Programme aim to train universal rather than specialist graduates and the interdisciplinary manner of the studies, a Programme title of "Environmental

Science” would be a better description of the content of the studies than the present title of “Environmental Science and Ecology.

Curriculum design:

The lack of issues-based, integrative environmental themes.

The need for greater harmonization – to include some areas of additional emphasis (e.g. EU frameworks and directives and generic research methods), modest course updating (e.g. *Water Ecology*) and avoidance of repetition (e.g. basic chemistry in *Environmental Geology*).

Staff:

The limited temporal opportunities available for greater staff mobility.

The need to encourage uptake of available VMU courses on training methods and basics of pedagogies for young teachers (including teaching assistants).

Facilities and Learning Resources:

The limited use of external private and public sector placement and equipment provisions potentially available through a greater involvement of social partners.

Study Process and student assessment:

The lack of focus on plagiarism.

Deficiencies in both the structuring and production of several final theses examined during the review visit, (e.g. deficiencies in broader thesis topics listing, title setting, wider contextual analysis and discussion of results, use of references, supervision process) which suggest the need for more generic training in research methodology.

Programme management:

Formal Study Programme Committee documentation appears to be virtually absent (e.g. minutes of meetings, annual evaluation reports, strategic development plans etc.).

The current system for any systematic involvement of the student voice in Programme management, either in terms of collecting information *from* students (Programme committee activity or in Programme-wide evaluation) or in disseminating action feedback *back to* students is currently too informal.

Current available input from social partners and graduates is minimal, leading, amongst other things, to restrictions in opportunities for practical placements and insightful Programme development.

V. GENERAL ASSESSMENT

The study programme *Environmental science and ecology* (state code – 612F70001) at Vytautas Magnus University is given positive evaluation.

Study programme assessment in points by evaluation areas.

No.	Evaluation Area	Evaluation Area in Points*
1.	Programme aims and learning outcomes	3
2.	Curriculum design	3
3.	Staff	3
4.	Material resources	4
5.	Study process and assessment (student admission, study process student support, achievement assessment)	3
6.	Programme management (programme administration, internal quality assurance)	3
	Total:	19

*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. David Eastwood

Grupės nariai:
Team members:

Prof. dr. Judit Padisak

Prof. dr. Kalev Sepp

Dr. Lina Šleinotaitė-Budrienė

Armandas Pisarskis

<...>

V. APIBENDRINAMASIS ĮVERTINIMAS

Vytauto Didžiojo universiteto studijų programa *Aplinkotyra ir ekologija* (valstybinis kodas – 612F70001) vertinama teigiamai.

Eil. Nr.	Vertinimo sritis	Srities įvertinimas, balais*
1.	Programos tikslai ir numatomi studijų rezultatai	3
2.	Programos sandara	3
3.	Personalas	3
4.	Materialieji išteklių	4
5.	Studijų eiga ir jos vertinimas	3
6.	Programos vadyba	3
	Iš viso:	19

* 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

Svarbiausi teigiami kokybės aspektai

Programos tikslai ir numatomi studijų rezultatai:

Tarpdalykinė programa suderinta su dabartinės Lietuvos darbo rinkos poreikiais, nes tai liudija geras Programą baigusiu absolventų įsidarbinimo rodiklis.

Programos sandara:

Nepaisant sunkumų tenkančių akademiniam personalui ir dėl materialiujų išteklių, tai, kad studentai gali laisvai rinktis baigiamojo darbo temas, yra pagirtina, kaip ir tas faktas, kad temos pasirenkamos palyginti gana anksti.

Personalas:

Programą įgyvendinantys dėstytojai yra iš esmės tinkamos kvalifikacijos, aktyviai dalyvauja mokslinėje veikloje, o jų mokslinės veiklos profilis aiškiai garėja.

Nepaisant didėjančio skatinimo personalui vykdyti mokslinius tyrimus, dėstytojų prieinamumas ir dabartinis personalo ir studentų santykis Programoje išlieka pagirtinas.

Materialieji ištekliai:

Mokslinių tyrimų rėmimo pajamos buvo panaudotos aukšto lygio moderniai Programos įrangai įsigyti.

Kita infrastruktūra, tokia kaip laboratorijos ir bibliotekos išteklių įvairovė, atitinka aukšto lygio standartus.

Studijų eiga ir studentų vertinimas:

Sudarytos geros studentų mobilumo galimybės, pateikiant tinkamą informaciją ir sudarant kalbų mokymosi galimybes.

Programos dėstymo ir vertinimo metodų diapazonas yra pagirtinai išplėstas ir įvairus, skiriant didelį dėmesį bendriesiems perkeliamesiems gebėjimams, tokiems kaip žodinis ir grupinis darbas, ugdyti.

Programos vadyba:

Atskirų dėstytojų lygmeniu grįžtamasis ryšys apie studijų dalykus, gautas remiantis studentų apklausomis, pasitelkiamas tiek vertinant studijų kursą, tiek ir atliekant metinį dėstytojų vertinimą.

Svarbiausi neigiami kokybės aspektai

Programos tikslai ir numatomi studijų rezultatai:

Atsižvelgiant į deklaruojamą Programos tikslą rengti universalius, o ne specializuotos pakraipos absolventus ir tarpdalykinį studijų pobūdį, studijų turinį labiau atitiktų Programos pavadinimas „Aplinkotyra“ nei dabartinis pavadinimas „Aplinkotyra ir ekologija“.

Programos sandara

Trūksta integruojamų aplinkosaugos temų, pagrįstų konkrečiomis aktualiomis problemomis.

Reikia daugiau suderinamumo – įtraukti tam tikras sritis pabrėžiant papildomą aspektą (pvz., pagrindinius ES dokumentus, direktyvas ir bendruosius mokslinių tyrimų metodus), nežymiai atnaujinti studijų dalykus (pvz., *Vandens ekologija*) ir vengti pasikartojimo (pvz., chemijos pagrindų *Aplinkos geologijos* studijose).

Personalas:

Ribotos personalo laikino judumo galimybės.

Būtina skatinti jaunos dėstytojus (įskaitant ir dėstytojus asistentus) pasinaudoti VDU siūlomais mokymo metodų ir pedagogikos pagrindų kursais.

Materialieji ištekliai:

Ribotas išorės privataus ir valstybinio sektoriaus teikiamų įdarbinimo ir įrangos galimybių panaudojimas, tai greičiausiai būtų labiau prieinama glaudžiau bendradarbiaujant su socialiniais partneriais.

Studijų eiga ir studentų vertinimas:

Trūksta dėmesio plagiavimo aspektui.

Pastebėta trūkumų tiek formuluojant, tiek ir rengiant kai kuriuos diplominius darbus, kurie buvo nagrinėti vizito metu (pvz., pasigesta platesnių diplominių darbų temų sąrašų sudarymo, pastebėta trūkumų formuluojant pavadinimus, pasigesta platesnės konteksto analizės ir rezultatų aptarimo, tinkamo nuorodų naudojimo, trūkumų vadovavimo baigiamiesiems darbams procese), o tai reiškia, jog būtina įtraukti daugiau bendrųjų studijų apie mokslinių tyrimų metodologiją.

Programos vadyba:

Nustatyta, kad oficialios studijų Programos komiteto dokumentacijos faktiškai nėra (pvz., susirinkimų protokolų, metinių vertinimo ataskaitų, strateginių plėtros planų ir kt.).

Esama sistema, skirta bet kokiam sistemingam studentų įtraukimui į Programos valdymą, ar tai būtų informacijos rinkimas iš studentų (Programos komiteto veikloje ar visos Programos vertinime), ar grįžtamojo ryšio apie įgyvendintus veiksmus skleidimas *studentams*, šiuo metu yra pernelyg neformali.

Dabartinis socialinių partnerių ir absolventų indėlis yra minimalus ir, be kita ko, riboja praktines įdarbinimo galimybes ir išvalgią Programos plėtrą.

III. REKOMENDACIJOS

1. Išanalizuoti ir persvarstyti Programos pavadinimą (atsisakyti žodžio „ekologija“) atsižvelgiant į Programos turinį, tikslus, studijų rezultatus ir suteikiamą kvalifikaciją.
2. Sistemingai įtraukti į studijų atnaujinimo procesus tikslinius socialinius partnerius ir kitus suinteresuotus dalyvius.
3. Užtikrinti tinkamą ir pakankamą laboratorinių išteklių organizavimą, skiriant pakankamai žmogiškųjų ir materialųjų išteklių, vietos.

4. Skirti daugiau reikšmės praktiniams įgūdžiams įgyti organizuojant daugiau ir įvairesnės praktikos už universiteto ribų ir išnaudojant kuo daugiau artimesnių ryšių su buvusiais universiteto studentais ir socialiniais partneriais.
5. Suteikti didesnes galimybes studentams dalyvauti programos valdyme, tiek renkant informaciją iš studentų (per SPK veiklą ir visos Programos vertinimą), tiek ir per grįžtamojo ryšio apie įgyvendintus veiksmus skleidimo *studentams* veiklą.
6. Persvarstyti dabartinį Programos turinį atnaujinant kursus (pvz., *Statistinių metodų aplinkotyroje ir biologijoje* kursą), atsisakant kai kurių temų pasikartojimo skirtinguose kursuose (pvz., kai kurių chemijos pagrindų dalykų *Aplinkos geologijoje*).
7. Gerinti laikinas sąlygas skatinant personalo judumą.
8. Gerinti baigiamųjų darbų kokybę (išplėsti diplominių darbų temų sąrašus, pavadinimų formulavimą, pateikti platesnę konteksto analizę ir rezultatų aptarimą, nuorodų panaudojimą) ir vadovavimo procesą – galbūt per tam tikslui skirtą mokslinių tyrimų metodų kursą.
9. Kartu su VDU Kokybės ir inovacijų centru įvesti specialų kursą apie mokymo metodus ir pedagogikos pagrindus jauniems dėstytojams (įskaitant dėstytojus asistentus).
10. Reguliariai vykdyti panašių programų konkurencingumo analizę, absolventų įsidarbinimo analizę, taip pat ir detalias dabartinių Programos studentų elgesio ir jų motyvacijos apžvalgą ir motyvus pasirenkant šią konkrečią Programą.
11. Apsvarstyti studijų konsultanto sistemos įdiegimą.
12. Apsvarstyti socialinių partnerių ir buvusių studentų forumo galimybę.

<...>
