



STUDIJŲ KOKYBĖS VERTINIMO CENTRAS

Kauno kolegijos

***ŽELDINAMŲ TERITORIJŲ INŽINERIJOS PROGRAMOS  
(653H93003)***

**VERTINIMO IŠVADOS**

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**EVALUATION REPORT  
OF ENGINEERING OF PLANTED TERRITORY STUDY  
PROGRAM (653H93003)**

at Kaunas College

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Išvados parengtos anglų kalba  
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## DUOMENYS APIE ĮVERTINTĄ PROGRAMĄ

Studijų programos pavadinimas	<i>Želdinamų teritorijų inžinerija</i>
Valstybinis kodas	653H93003
Studijų sritis	Technologijos mokslų
Studijų kryptis	Inžinerija
Studijų programos rūšis	Koleginės studijos
Studijų pakopa	Pirmoji
Studijų forma (trukmė metais)	Nuolatinė (3), Iššęstinė (4)
Studijų programos apimtis kreditais	180
Suteikiamas laipsnis ir (ar) profesinė kvalifikacija	Inžinerijos profesinis bakalauras
Studijų programos įregistravimo data	2003-05-29, Nr.762

## INFORMATION ON ASSESSED STUDY PROGRAM

Name of the study program	<i>Engineering of Planted Territory</i>
State code	653H93003
Study area	Technological sciences
Study field	Engineering
Kind of the study program	College studies
Level of studies	First
Study mode (length in years)	Full-time (3), Part-time (4)
Scope of the study program in credits	180
Degree and (or) professional qualifications awarded	Professional Bachelor of Engineering
Date of registration of the study program	29-05-2003, No. 762

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## I. INTRODUCTION

The evaluation is based on the analysis of the Self-Evaluation Report (SER) prepared by the self-evaluation group of Kaunas College and the information obtained from the representatives of the college and program stakeholders during the visit of the assessment team on 8<sup>th</sup> November 2012.

For the assessment the following documents have been considered:

1. METHODOLOGY FOR EVALUATION OF HIGHER EDUCATION STUDY PROGRAMS (Approved by Order No 1-01-162 of 20 December 2010 of the Director of the Centre for Quality Assessment in Higher Education);
2. EXTRACTS FROM THE DESCRIPTION OF THE EVALUATION PROCESS FOR STUDY PROGRAMMES AND METHODOLOGICAL GUIDELINES;
3. General regulations for technological science (engineering) studies (approved by the Minister of education and science of Republic of Lithuania on the 29<sup>th</sup> of April, 2005. No. ISAK-734);
4. LAW ON HIGHER EDUCATION AND RESEARCH OF REPUBLIC OF LITHUANIA (approved on 30 April 2009 No XI-242).

The “Engineering of Planted Territory Study Program” is a unique program in Lithuania. Hence there are no direct competitors and a comparison to other programs cannot be done directly. Despite of some similarities to other programs, such as “Landscape Design” or “Landscape Gardening and Design”, this program aims at a very specific specialization, which is pretty much linked to labor market issues, e. g. employability and competition with neighboring disciplines. A key question for the future development of this program, is to find a good balance of strengthening the unique contents of this program necessary for a well-grounded specialization on the one hand and providing the students with a sound array of qualifications as a basis for an increased professional flexibility and independency, especially under conditions of economic recession on the other hand. A systematic consideration of this study program should also take into account future development potential and potential synergy effects with regard to other landscape related study programs, especially the Gardening and Landscape Design program at Kaunas College.

## II. PROGRAM ANALYSIS

### *1. Program aims and learning outcomes*

Program aims and learning outcomes are explicitly described in chapter 2.1 of the Self-Evaluation Report (SER): “The aim of the study programme is to deliver theoretical knowledge, practical skills and abilities of independent work of general, engineering field and specialization subjects which are needed for personality development and professional preparation ...” (SER: p. 7). These aims contribute “to enhance possibilities of integration into the knowledge society” and to work under “labor market conditions according to contemporary employers” needs and perspectives” of economic development (SER: p. 7).

These aims comprise the following activities:

- “to organize the construction work of planted territory”,
- “to evaluate the spatial – volumetric structure of green plantations”,
- “to perform engineering arrangement of territory”,
- “to carry out construction of territory arrangement elements”,
- “to establish a business enterprise”,
- “to communicate and cooperate”, and
- “to make independent decisions” (SER: p. 7).

Concurrently SER defines a catalogue of program learning outcomes, which are closely related to the above listed activities. In addition to SER, a detailed description of study subjects of the Engineering and Planted Territory study program has been compiled in Annex 1, comprising more than 200 pages. For each study subject individual aims and learning outcomes, substantiating above cited aims of the study program itself, have been defined.

The authors of the SER argue that “learning outcomes of the study programme reflect the aim of the programme – to prepare a qualified engineering professional bachelor”, because “learning outcomes are closely interrelated; they supplement each other in evaluation of the present situation, selection of proper materials, tools and mechanisms, analysis and performance of green plantation and construction drawings by preserving nature, selecting the latest technologies for implementation of green plantation project” (SER: p. 8). Finally, the authors conclude “the engineering professional bachelor understands the business environment, is guided by holistic approach in decision making, and is able to collect the latest professional information for implementation of the optimal project” (SER: p. 8).

The program aims and learning outcomes are publicly accessible in the Internet in Lithuanian language, but should also be provided in English for foreign students in accordance with the Kaunas College Strategy (SER: p. 7).

The program aims and learning outcomes are based on the academic and/or professional requirements, public needs and the needs of the labor market. However, it remains unclear, whether or not graduates with landscape architecture, landscaping, and greening profile would achieve the same qualification as Engineering of Planted Territory graduates. The cited Law on Green Plantations of the Republic of Lithuania does not contain any priorities concerning the prerequisites of “accredited specialists with higher education”. Hence, several different programs seem to equally fulfill the legal requirement, despite of the fact that they may have varying contents. There is evidence that Engineering of Planted Territory graduates become employed to a high degree according to their specialty under prosperous economic conditions. Although employability, especially with regard to the graduate’s specialty, is decreasing under poor economic conditions (SER: p. 8). To ensure a more valid insight in market’s needs available qualitative data in future should be supplemented by quantitative data on the competitiveness of Engineering of Planted Territory graduates in relation to graduates from other disciplines. This should be done with regard to the professional profile described in the Law on Green Plantations of the Republic of Lithuania.

The program aims and learning outcomes could be regarded as consistent with the type and level of studies and the level of qualifications offered under conditions of mid-term success of the study program. Relevant aspects are: reduction of employability fluctuations as well as proved high competitiveness of Engineering of Planted Territory graduates compared to other graduates. The ambiguity of specialization on the one hand, and the finding of qualitative research on the other hand, which reveals that “88 percent of the respondents agree that a specialist of engineering of planted territory has to be of *wide* profile”, should lead to a mid-term further development of the program, including further engineering contents, especially in the field of green technologies, including green roof construction, constructed wetlands (biofilter for waste water treatment).

The name of the program, its learning outcomes, especially the final works, content and the qualifications offered are generally compatible with each other, but the engineering profile should be improved. Further exceptions are mentioned in paragraphs 2 and 5 (dendrology, flower growing, irrigation techniques, potential impacts of climate change on natural vegetation, and

engineering of plantations). In future, the program should be further developed in these areas to get a clear profile, compared to the Gardening and Landscape Design program

## ***2. Curriculum design***

The curriculum design meets most of legal requirements, cited in SER: p. 11-12. One exception, which is mentioned in SER (table 4) is the number of credits for study field practices, which is – with 27 credits – regarded too low, compared to legal requirement, which define a threshold of at least 30 credits. This critique was also confirmed by students and social partners.

Study subjects are not spread evenly in terms of the distribution of credits as well as hours on the different components (SER: p. 10, line 15). The following “components” are described in the report: “general college study subjects”, “study field subjects”, “optional subjects”, and “free elective subjects”, SER: p. 10).

The curriculum design does not explicitly contain modules. Instead of modules the program contains “components” as mentioned above. The study subjects (within the components) are not spread evenly. Since the logic of the program structure has been sufficiently described (SER: p. 9-10), the formal violation of evenly distributed study subjects seems to be neglectable, especially against the background that their themes are not repetitive.

The content of the subjects is mainly consistent with the type and level of the studies. Only some subjects, such as introduction to philosophy, basics of law, ethics or social psychology are not necessarily components of this program. Their purpose according to the Law on Higher Education and Research of the Republic of Lithuania is to contribute to the cultivation of “a creative, educated, dignified, morally responsible, public-spirited ... personality”. Nevertheless, it could be fruitful to more focus the contents of these subjects on “study field subjects” in future, aiming at an improvement of both rationale and efficiency of the program.

The content and methods of the subjects seem to be generally appropriate for the achievement of the intended learning outcome. Many efforts have been made to define study subjects and intended learning outcomes according to the requirements of the Ministry of Education and Science. The assessment of students’ learning achievements is executed by a specific system, which is regulated by Kaunas College Study Order 2011 (SER: p. 25). Besides, a Qualification Commission has been appointed by Kaunas College director. This commission consists of at least 5 members aiming at assessing the student’s final thesis and suggesting how to improve

quality of final theses (SER: p. 25). Nevertheless “a detailed analysis of student’s workload in relation with learning outcomes and learning achievements has not been done yet” (SER: p. 28).

The scope of the program seems to be sufficient to ensure learning outcomes. The content of the program to a high degree reflects the latest achievements in science, art and technologies. Shortcomings are concerning the topics “dendrology”, “flower growing”, “irrigation techniques” as well as “potential impacts of climate change on natural vegetation and engineering of plantations”. These topics should also cover new technologies and international standards.

### **3. Staff**

The study program is provided by the staff meeting legal requirements. It is commendable that parts of the teaching staff have finalized or are about to finalize their PhD theses, which indicates that the college is involved in the generation of scientific progress and at least parts of the teaching staff are highly qualified.

The qualification of the teaching staff in general is adequate to ensure learning outcomes in as much as the teaching is carried out in Lithuanian language. “Insufficient exchange with foreign partners” and the fact that the program is being realized mostly by teachers with insufficient English knowledge, reveal as “barrier for the development in internationalization” (SER: p. 16).

Even if the number of the teaching staff would be regarded adequate to ensure learning outcomes of the students, it is obvious that the real workload of the teaching staff is too high, which leads to consequences as follows:

- The time budget of teaching staff for research activities is limited,
- The time budget of teaching staff for personal development, especially for improvement of foreign languages (e.g. English), is limited,
- The limitation of teaching staff’s time budget for research and personal development necessarily results in a reduced potential to participate in international activities, such as conferences or exchange programs, which again means that the potential for the staff to learn and further develop from these activities is not used. Furthermore, under these circumstances it is very difficult to increase the number of lessons held in English. This does not make the study program very attractive for foreign students. At the same time Lithuanian students are not prepared for participation in study abroad programs.



- The motivation of teaching staff cannot reach an optimum level, which in turn could have negative impacts on the quality of the study program and the learning outcomes of the students.

Teaching staff turnover seems to be able to ensure an adequate provision of the program. The higher education institution only partly creates conditions for the professional development of the teaching staff necessary for the provision of the program. According to the report (SER: p. 14-15) only “a small number of teachers” were involved in “on-the-job trainings or courses abroad”. Especially the latter was mentioned to be “very small” (SER: p. 15).

The teaching staff of the program is involved in research directly related to the study program being reviewed. This has been generally verified by considerable publication activities of the teaching staff (SER: p. 14). Unfortunately in SER it remains unclear whether or not this is valid for all individual members of the staff. Correspondent information is even missing in Annex 2 of SER. The visit revealed that these figures include publications from teachers who are affiliated to other institutions as well and therefore are only part-time teachers at Kaunas College.

#### ***4. Facilities and learning resources***

The premises for studies in terms of facilities and learning resources are partially adequate in their size and quality. The visitation revealed that there is an unused potential of investment.

The teaching and learning equipment, especially laboratory and computer equipment, is not adequate in size and quality, because the number of computers (about 60) is insufficient (SER: p. 18-19). The higher education institution has adequate arrangements for students’ practice. This is only partly valid for the studies of disabled people (SER: p. 19), even if support has been created (lab which is better accessible, special program for disabled people).

The major problem and challenge for future development of the study program is linked to the uncertainty concerning the removal to another location in the inner city of Kaunas. On the one hand this could be more attractive for some students, but on the other hand it leads to the question, whether or not, and if so, to which extent students and teachers will be provided with greenhouses, nursery, arboretum etc., which are essential parts for the transfer of practical knowledge in this subject. The worst case scenario, which is unfortunately not unrealistic, would be a study program, which would not be provided with these essential facilities.

Teaching materials (textbooks, books, periodical publications, databases) are accessible and adequate. The students may use the integral library information system ALEPH, so the books are easily accessible. There are 20 periodicals subscribed that are suitable for the EPT studies. This list consists of all major publications found in Lithuania and 6 more are added in foreign languages (Russian, English, German). This is an adequate source of periodicals for present needs. Students and teachers can use 8 subscribed databases. Students have access to these databases from all computers. The students also have the possibility to access these databases from their own devices (Notebooks, tablets, etc.) while using the local wireless network.

The study program lacks in one important facility: an arboretum. The demonstration site for irrigation techniques should be accessible for students and teachers after relocation as well.

### ***5. Study process and student assessment***

The admission requirements are well-founded; SER (p. 20) states that the conditions of admission to the EPT study program have been defined by the Association of the Lithuanian Higher Education institutions. This is a trusted association in Lithuania. Since Kaunas College follows the definitions made by this association, admission requirements could be regarded as well-founded.

Similar to the Gardening and Landscape Design program the organization of the study process ensures an adequate provision of the program and the achievement of the learning outcomes, with exception of shortcomings described above, especially concerning dendrology, flower growing, irrigation techniques, potential impacts of climate change on natural vegetation, and engineering of plantations.

In SER it was mentioned, that “it is more difficult to match practice time and sessions for the students with no practical skills” (SER: p. 31). The expert team had the impression that more practical training would be possible and advantageous (especially in flower growing and dendrology). Another solution of this problem could be an introduction of an obligatory practical work of 6 or at least 3 months as a prerequisite for the admission to the study program.

Much efforts and attention is being put to data analysis of terminated studies. Prevention efforts have been successful.

Students are encouraged to participate in research, artistic and applied research activities. Unfortunately, there is only information available about student participation in events, projects, exhibitions etc. inside the faculty. The SER lacks information whether or not students participate in events outside the boundaries of the faculty. During the visit it became clear that at least some students try to get information on activities outside the faculty and some of them even intend to stay abroad. The conferences of student self-study is an encouraging activity. Statistics on the participation at these events would be helpful for future evaluations.

Theoretically, students have opportunities to participate in student mobility programs; a severe problem is that students are not adequately prepared to study abroad (because of very few English lessons), and those students who are willing to participate in study abroad programs face the problem that their attainments from abroad are not accepted in the Engineering of Planted Territory program.

The higher education institution seems to ensure an adequate level of academic and social support. The assessment system of students' performance is clear, adequate and publicly available. Professional activities of the majority of graduates meet the program providers' expectations, at least under prosperous economic conditions. During economic recession the number of graduates employed according to their specialty has decreased to 35 %, which is not really good (SER: p. 8), but acceptable.

During the visitation it became obvious that a systematic evaluation of all single study subjects by the students so far has not been implemented, despite of the fact that a "best teacher award" has been already created.

#### ***6. Program management***

Responsibilities for decisions and monitoring of the implementation of the program are clearly allocated. The department is responsible for the management of the Engineering of Planted Territory Program. It is managed by a teacher who at the same time is head of the department. He is supported by administrative staff (SER: p.31). The management process of the study program is performed on faculty and department level. Student delegates are also involved in the process. For the monitoring of the study program quality a study program committee was founded, consisting of scientists, representatives of employers, teachers, graduates, and students (SER: p.31). A weak point, which was mentioned in SER (p. 34) is the fact that "alumni activity is not sufficiently developed" and needs further improvement. This could have a positive effect for the evaluation and improvement process in future.

Information and data on the implementation of the program are regularly collected and analyzed, with exception of routine comprehensive student evaluations. The outcomes of internal and external evaluations of the program are used for the improvement of the program, with exception of regular evaluations of all single study subjects by the students. That means there are only general evaluation results available. Student evaluations of all single lectures, seminars etc. are missing despite of the fact that they could be useful for the teachers to improve their teaching.

The internal quality assurance measures have to be improved to become more effective and efficient. Even if the management has created incentives for the teaching staff, such as “best teacher award” or financial incentives (additional salary), teachers’ workload is too high to successfully increase research activities or to improve English knowledge as prerequisite for an improvement of international relations. Hence, future program management necessarily should consider and implement motivation strategies for the teaching staff, because at least some parts of the teaching staff seem to be a bit frustrated.

### III. RECOMMENDATIONS

1. The program aims and learning outcomes should also be provided in English for foreign students in accordance with the Kaunas College Strategy. To ensure a more valid insight in market’s needs available qualitative data in future should be supplemented by quantitative data on the competitiveness of Engineering of Planted Territory graduates in relation to graduates from other disciplines. A mid-term further development of the program is recommended, including further engineering contents, especially in the field of green technologies, including green roof construction, and constructed wetlands (biofilter for waste water treatment). In future more attention should be paid on dendrology, flower growing, irrigation techniques, potential impacts of climate change on natural vegetation, and engineering of plantations.
2. The number of credits for study field practices should be increased to at least 30. Contents of subjects like “introduction to philosophy”, “basics of law”, “ethics” or “social psychology” should focus more on “study field subjects” in future, aiming at an improvement of both rationale and efficiency of the program. A detailed analysis of student’s workload in relation

with learning outcomes and learning achievements as well as a regular systematic evaluation of all single study subjects by the students should be implemented in future.

3. The time budget of teaching staff for research activities (including PhD-theses and participation in international conferences) as well as for personal development, especially for improvement of foreign languages, has to be increased. Correspondingly, the time budget for teaching has to be reduced. The involvement of teaching staff in “on-the-job trainings or courses abroad” as well as exchange programs with foreign colleges should be increased.
4. Students and teachers should be provided in future (after relocation) with greenhouses, nursery, arboretum, sites for irrigation techniques etc., which is an essential part for the transfer of practical knowledge in this subject.
5. More practical training should be included in the program (especially in flower growing and dendrology). Statistics on student participation at the conferences of student self-study should be established. Student mobility has to be increased; students should be adequately prepared to study abroad (by a minimum number of English lessons in EPT program). Students willing to participate in study abroad programs should be supported by accepting their attainments from abroad in the Engineering of Planted Territory program.
6. The outcomes of internal and external evaluations of the program should be used for the improvement of the program, including regular evaluations of all single study subjects by the students. Alumni activity should be further developed. The internal quality assurance measures have to be improved to become effective and efficient. International relations should be improved. Future program management should consider and implement motivation strategies for the teaching staff.

#### IV. SUMMARY

The “Engineering of Planted Territory Study Program” at Kaunas College aims at a very specific specialization. The program aims and learning outcomes are based on the academic and/or professional requirements, public needs and the needs of the labor market. However, it remains unclear, whether or not graduates with landscape architecture, landscaping, and greening profile would achieve the same qualification as Engineering of Planted Territory graduates. Thus it is not unlikely that the same qualification could be provided by the above mentioned study

programs. This means in turn, that it could be one option for the future to merge the Engineering of Planted Territory program and the Gardening and Landscape Design Program, especially under condition of a decreasing number of applicants.

The program aims and learning outcomes could be regarded as consistent with the type and level of studies and the level of qualifications offered under conditions of mid-term success of the study program. The name of the program, its learning outcomes, content and the qualifications offered are generally compatible with each other, but the engineering profile should be improved, especially in the field of green technologies, including green roof construction, constructed wetlands (biofilter for waste water treatment). Since the program lacks internationality, participation of teachers and students at exchange programs with foreign colleges has to be increased.

The qualification of the teaching staff is adequate to ensure learning outcomes inasmuch as the teaching is carried out in Lithuanian language. The time budget of teaching staff for research activities (including PhD-theses and participation in international conferences) as well as for professional development, especially for improvement of foreign languages, has to be increased.

The premises for studies in terms of facilities and learning resources are partially adequate in their size and quality. Especially laboratory and computer equipment is not adequate in size and quality and has to be improved. The study program lacks in an arboretum and a demonstration site for irrigation techniques. After relocation students and teachers should be provided with greenhouses, nursery, arboretum, and sites for irrigation techniques.

The organization of the study process ensures an adequate provision of the program and the achievement of the learning outcomes, with some exceptions. More practical training should be included in the program (especially in flower growing and dendrology). Students are encouraged to participate in research, artistic and applied research activities. The higher education institution seems to ensure an adequate level of academic and social support. The assessment system of students' performance is clear, adequate and publicly available. Professional activities of the majority of graduates meet the program providers' expectations at least under prosperous economic conditions. Students willing to participate in study abroad programs should be supported by accepting their attainments from abroad in the Engineering of Planted Territory program. The annual evaluation of the single study subjects by the students should be improved, by including detailed questions concerning the educational concept, the consideration of

international publications, the willingness and ability of the teachers to teach (at least) some lessons in English, whether or not the teacher is well prepared, whether or not the teacher has rhetorical abilities, whether or not the teacher is able to fascinate and motivate the students, whether or not the teacher is able to point out practical relevance of his subjects to the students etc. The students should be encouraged to participate at those evaluations regularly.

Responsibilities for decisions and monitoring of the implementation of the program are clearly allocated. The Internal quality assurance measures have to be improved to become effective and efficient. Alumni activity should be further developed. Future program management should consider and implement motivation strategies for the teaching staff.

## V. GENERAL ASSESSMENT

The study program “Engineering of Planted Territory” (653H93003) at Kaunas College is given a **positive** evaluation.

*Study program assessment in points by fields of assessment.*

No.	Evaluation Area	Evaluation Area in Points*
1.	Program aims and learning outcomes	2
2.	Curriculum design	2
3.	Staff	2
4.	Material resources	2
5.	Study process and assessment (student admission, study process student support, achievement assessment)	2
6.	Program management (program administration, internal quality assurance)	2
	<b>Total:</b>	<b>12</b>

\*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.

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### III. REKOMENDACIJOS

1. Remiantis Kauno kolegijos strategija, programos tikslai ir numatomi studijų rezultatai taip pat turėtų būti pateikti anglų kalba užsieniečiams. Siekiant geriau suprasti rinkos poreikius, ateityje turimus kokybinius duomenis reikėtų papildyti kiekybiniais duomenimis apie Želdinamų teritorijų inžinerijos programos absolventų konkurencingumą, lyginant su kitų disciplinų absolventais. Reikėtų toliau tobulinti programą vidutiniu laikotarpiu, įskaitant inžinerijos dalykų turinį, ypač aplinką tausojančių (ekologiškų) technologijų srityje, įskaitant ekologiškas stogo konstrukcijas, vandens ir nuotekų valymo sistemas (nuotekų valymo biofiltrus). Ateityje reikėtų atkreipti didesnę dėmesį į dendrologijos, gėlininkystės, drėkinimo metodus, galimą klimato kaitos poveikį natūraliai augmenijai ir želdinių inžineriją.
2. Studijų krypties praktikos kreditų skaičių reikėtų padidinti bent iki 30. Tokių dalykų kaip „Filosofijos įvadas“, „Teisės pagrindai“, „Etika“ ar „Socialinė psichologija“ turinys ateityje turėtų būti labiau orientuotas į studijų krypties dalykus, siekiant pagerinti programos loginį išdėstymą ir veiksmingumą. Ateityje reikėtų atlikti išsamią studentų darbo krūvio analizę, lyginant su numatomais studijų rezultatais ir pasiekimais, taip pat reguliariai atlikti studentų atskirų studijų dalykų sistemingą vertinimą.
3. Daugiau laiko turėtų būti skiriama dėstytojų tiriamajai veiklai (įskaitant disertacijų rašymą ir dalyvavimą tarptautinėse konferencijose) bei asmeniniam tobulinimuisi, ypač gerinant užsienio kalbų mokėjimo įgūdžius. Atitinkamai reikėtų sumažinti dėstytojų valandų skaičių. Reikėtų labiau skatinti dėstytojus mokytis darbo vietoje arba dalyvauti kursuose užsienyje bei mainų programose su užsienio kolegijomis.
4. Ateityje (po persikėlimo į naują vietą) studentams ir dėstytojams turėtų būti sudarytos sąlygos naudotis šiltnamiais, daigynais, medelynais ir drėkinimo sistemų aikšte, kurie yra būtini perteikiant praktines šio dalyko žinias.
5. Programoje turėtų būti daugiau praktikos (ypač gėlininkystės ir dendrologijos). Reikėtų rinkti statistinius duomenis apie studentų dalyvavimą savarankiškų studijų konferencijose. Reikėtų intensyvinti studentų judumą (mobilumą); studentai turėtų būti tinkamai rengiami studijoms užsienyje (įtraukiant minimalų anglų kalbos paskaitų skaičių į Želdinamų teritorijų

inžinerijos studijų programą). Studentai, norintys dalyvauti mainų programose, turėtų būti palaikomi įskaitant jų įgytus studijų rezultatus į Želdinamų teritorijų inžinerijos programą.

6. Programos išorinio ir vidinio vertinimo rezultatai turėtų būti naudojami programai tobulinti, įskaitant reguliarių studentų atskirų studijų dalykų vertinimą. Absolventų veikla turėtų būti toliau plėtojama. Vidinio kokybės užtikrinimo priemonės reikėtų tobulinti, kad jos taptų veiksmingos ir efektyvios. Tarptautiniai santykiai turėtų būti gerinami. Kalbant apie programos vadybą ateityje, reikėtų apsvarstyti ir įgyvendinti dėstytojų motyvacijos strategijas.

#### IV. SANTRAUKA

Kauno kolegijos Želdinamų teritorijų inžinerijos studijų programa orientuota į ypač specifinę specializaciją. Programos tikslai ir numatomi studijų rezultatai pagrįsti akademiniiais ir (arba) profesiniais reikalavimais, visuomenės ir darbo rinkos poreikiais. Vis dėlto lieka neaišku, ar absolventai įgiję kraštovaizdžio architektūros, kraštovaizdžio ir želdynų formavimo profilius gauna tą pačią kvalifikaciją kaip ir Želdinamų teritorijų inžinerijos programos absolventai. Panašu, kad minėtos studijų programos gali suteikti tą pačią kvalifikaciją. Tai reiškia, kad viena iš galimybių ateityje yra sujungti Želdinamų teritorijų inžinerijos bei Želdinių ir jų dizaino programą, ypač tuo atveju, jei mažės stojančiųjų skaičius.

Programos tikslai ir numatomi studijų rezultatai gali būti vadinami atitinkančiais studijų tipą bei pakopą ir teikiamų kvalifikacijų lygį vidutinio laikotarpio studijų programos sėkmingumui. Programos pavadinimas, numatomi studijų rezultatai, turinys ir teikiama kvalifikacija bendrai dera tarpusavyje, tačiau inžinerinį aspektą reikėtų tobulinti, ypač aplinką tausojančių (ekologiškų) technologijų srityje, įskaitant ekologiškas stogo konstrukcijas, vandens ir nuotekų valymo sistemas (nuotekų valymo biofiltrus). Kadangi programai trūksta tarptautiškumo, dėstytojų ir studentų dalyvavimas mainų programose su užsienio kolegijomis turėtų būti intensyvesnis.

Dėstytojų kvalifikacija yra pakankama numatytiems studijų rezultatams užtikrinti tiek, kiek dėstoma lietuvių kalba. Daugiau laiko turėtų būti skiriama dėstytojų tiriamajai veiklai (įskaitant disertacijų rašymą ir dalyvavimą tarptautinėse konferencijose) bei profesiniam tobulinimuisi, ypač gerinant užsienio kalbų mokėjimo įgūdžius.

Studijų patalpų dydis ir kokybė, kalbant apie materialiąją bazę ir metodinius išteklius, yra iš dalies pakankami. Ypač netenkina laboratorinės ir kompiuterinės įrangos kiekis ir kokybė; šią įrangą reikėtų gerinti. Studijų programai įgyvendinti trūksta medelyno ir drėkinimo sistemų demonstravimo aikštelės. Po persikėlimo į naują vietą, studentams ir dėstytojams turėtų būti sudarytos sąlygos naudotis šiltnamiais, daigynais, medelynais ir drėkinimo sistemų aikštele.

Studijų eigos organizavimas užtikrina tinkamą programos vykdymą ir numatomų studijų rezultatų įgyvendinimą su keliomis išimtimis. Programoje turėtų būti daugiau praktikos (ypač gėlininkystės ir dendrologijos). Studentai yra skatinami dalyvauti moksliniuose tyrimuose, meninėje bei taikomųjų tyrimų veikloje. Aukštoji mokykla užtikrina tinkamą akademinę ir socialinę paramą. Studentų pasiekimų vertinimo sistema aiški, tinkama ir viešai prieinama. Daugumos absolventų profesinė veikla atitinka programos teikėjų lūkesčius, bent jau palankiomis ekonominėmis sąlygomis. Studentai, norintys dalyvauti mainų programose, turėtų būti palaikomi įskaitant jų įgytus studijų rezultatus į Želdinamų teritorijų inžinerijos programą.

Atskirų studijų dalykų metinio įvertinimo studentų apklausą reikėtų tobulinti, įtraukiant išsamius klausimus apie dėstyto koncepciją, tarptautinius leidinius, dėstytojų norą ir gebėjimą dėstyti (bent jau) kelis dalykus anglų kalba, dėstytojų pasirengimą, retorinius gebėjimus, gebėjimą sudominti ir motyvuoti studentus, gebėjimą atkreipti studentų dėmesį į praktinę jų dėstomų dalykų svarbą ir t. t. Studentus reikėtų skatinti nuolat dalyvauti tokiuose vertinimuose.

Atsakomybė už sprendimų priėmimą ir programos įgyvendinimo stebėseną aiškiai paskirstyta. Vidinio kokybės užtikrinimo priemonės reikėtų tobulinti, kad jos taptų veiksmingos ir efektyvios. Absolventų veikla turėtų būti toliau plėtojama. Kalbant apie programos vadybą ateityje, reikėtų apsvastyti ir įgyvendinti dėstytojų motyvacijos strategijas.