



STUDIJŲ KOKYBĖS VERTINIMO CENTRAS

KAUNO MIŠKŲ IR APLINKOS INŽINERIJOS KOLEGIJA

STUDIJŲ PROGRAMOS

Miško ūkis (valstybinis kodas – 653D50001)

VERTINIMO IŠVADOS

EVALUATION REPORT

of Forestry (state code - 653D50001)

STUDY PROGRAMME

at KAUNAS FORESTRY AND ENVIRONMENTAL ENGINEERING
COLLEGE OF HIGHER EDUCATION

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Išvados parengtos anglų kalba
Report language - English

DUOMENYS APIE ĮVERTINTĄ PROGRAMĄ

Studijų programos pavadinimas	<i>Miško ūkis</i>
Valstybinis kodas	653D50001
Studijų sritis	Biomedicinos mokslai
Studijų kryptis	Miškininkystė
Studijų programos rūšis	Koleginės
Studijų pakopa	Pirma
Studijų forma (trukmė metais)	Nuolatinės studijos (3 metai) Ištęstinės studijos (4 metai)
Studijų programos apimtis kreditais	180
Suteikiamas laipsnis ir (ar) profesinė kvalifikacija	Miškininkysės bakalauras
Studijų programos įregistravimo data	2002 m. rugpjūčio 30 d.

INFORMATION ON EVALUATED STUDY PROGRAMME

Title of the study programme	<i>Forestry</i>
State code	653D50001
Study area	Biomedical Sciences
Study field	D500 Silviculture
Type of the study programme	College studies
Study cycle	First
Study mode (length in years)	Full-time (3 years) , part –time (4 years)
Volume of the study programme in credits	180
Degree and (or) professional qualifications awarded	Professional Bachelor of Forestry
Date of registration of the study programme	30 August 2002

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The Centre for Quality Assessment in Higher Education

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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

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

The study program is provided by Kaunas Forestry and Environmental Engineering College (KFEEC). KFEEC performs first level studies in the fields of biomedical and technological sciences. In order to develop research activities and improve the quality of higher education, it cooperates with the Ministry of Education and Science, Ministry of Environment of the Republic of Lithuania, national and regional parks, forest enterprises, Chamber of Agriculture, Lithuanian and other educational and business institutions, as well as foreign

universities and it participates in the European Union's Erasmus mobility and NordPlus programs. As part of the European Union's Erasmus program, KFEECHE is a partner of 37 European countries

Kaunas Forestry and Environmental Engineering College of Higher Education consists of :

- Faculty of Forestry and Landscape Management;
- Faculty of Environmental Engineering;
- Vocational Training Department;
- Information Centre;
- Other departments.

At the Kaunas Forestry and Environmental Engineering College of Higher Education, Forestry studies of the Forest growing study branch within the area of Silvicultural studies, in the field of Biomedical sciences are provided at the Faculty of Forestry and Landscape Management.

There are two departments at the Faculty of Forestry and Landscape Management: the Department of Forestry and the Department of Landscape Architecture and Recreation, which supervise separate study programs. The Department of Forestry supervises the study program of Forestry, and the Department of Landscape Architecture and Recreation supervises the study programs of Landscape Design and Recreation. Most of the special education subjects are taught by the lecturers of the Department of Forestry. General subjects are taught by lecturers of the departments of Technical Sciences, Social Sciences and Humanities.

The departments of the Faculty of Environmental Engineering, concentrating specialists and educators of hydraulic engineering, land management, cadastral measurements and real estate valuation are also involved in the preparation process of Forestry professionals.

On 31 December 2004, the Ministry of Education and Science of the LR as well as the Ministry of Social and Labour Safety of the LR approved of the Professional Training Standard document of Forestry Engineer. The study program has been coordinated with that document.

The highest academic self-governance institution in the college is the Academic Council. Academic activities in the college are coordinated by the Deputy Director for academic activities, in the faculty – by studies administrators, and, in the departments – by the heads of departments. Full-time and continuous (correspondence) studies at the faculty are organized by studies administrators.

The Department of Forestry, which supervises the Forestry study program, addresses the issues of theoretical and practical training, organizes and performs methodological work, coordinates preparation of curricula and reference material, keeps contacts with potential employers and social partners, carries out international cooperation projects, performs annual self-evaluations, and, organizes advertising of the Forestry study program.

Self-evaluation of the Forestry program of Forest Growing branch in the field of Silvicultural studies was performed by the self-evaluation Working Group, formed on 2 May 2013.

1.4. The Review Team

The review team was completed according *Description of experts' recruitment*, approved by order 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 23^d October 2014.

1. **Brian O'Connor (team leader)**, *independent consultant in education, former Head of School of Business and Social Studies at the Institute of Technology Tralee, Ireland;*
2. **Prof. dr. Jose Antonio Bonet**, *associate professor at the Department of Crop Science and Forest Science, University of Lleida, Spain;*
3. **Prof. dr. Jan-Erik Hällgren**, *professor emeritus of Department of Forest Genetics and Plant Physiology, Faculty of Forest Sciences at Swedish University of Agricultural Sciences, Sweden;*
4. **Prof. dr. Hardi Tullus**, *Professor of Department of Silviculture, Institute of Forestry and Rural Engineering at Estonian University of Life Sciences, Estonia;*
5. **Dr. Kęstutis Armolaitis**, *Chief researcher at the Institute of Forestry, Lithuanian Research Centre for Agriculture and Forestry, Lithuania;*
6. **Mr. Justinas Staugaitis**, *master of study programme "Environmental Engineering" at Kaunas University of Technology, Lithuania.*

II. PROGRAMME ANALYSIS

2.1. Programme aims and learning outcomes

The aims and learning outcomes of Forestry study program at Kaunas Forestry and Environmental Engineering College are most appropriate given unique position of the College as the only provider of professional bachelor education in forestry in Lithuania. The aims and learning outcomes are ideally suited to the needs of the industry and meet very well the academic requirements at this level. The aims and learning outcomes are very well defined, clear and publicly accessible. Practical and theoretical sides of the program are well balanced.

The program objectives and study results are available on the College website. The programme aims and learning outcomes are consistent with the type and level of studies and the level of qualifications offered. The college interacts with social partners and feedback is very good. It was obvious from the meeting of the experts with the social partners that the aims and learning outcomes reflect close collaboration between the College and the forest management and forest industry enterprises and that the programme graduates will have good employment prospects.

The name of the programme, the learning outcomes, the programme contents and the qualification offered are all compatible. However the name of the branch of the study area (*Forest growing*) should be changed (at least in English version), as the content of the program is broader.

In sum, the programme aims and learning outcomes are very well articulated and are very appropriate to studies in Forestry at professional bachelor level.

- *The aims reflect the professional requirements and the needs of the labour market. The name of the programme, the learning outcomes, the programme content and the qualification offered are all compatible. However, the name of the branch of the study area should change (at least in English version), as the content of the program is broader.*
- *The programme aims and learning outcomes are based on the academic and professional requirements, public needs and the needs of the forest management and forest industry labour market.*
- *The programme aims and learning outcomes are consistent with the type and level of studies and the level of qualifications offered.*

2.2. Curriculum design

The Forestry bachelor degree programme and curriculum design meets the requirements of the law. The curriculum of college studies leading to a bachelor's degree in professional directions is of a modular composition and consists of 180 credits as follows:

- general subjects comprise 15 credits;
- subjects of the study field – 135 credits., including 9 credits for graduation thesis and final exam;
- practices (training and professional - specialization) - 38 credits;
- subjects of elective specialization branch – 15 credits.;
- students have the possibility to freely choose the remaining course credits from proposed by the College list of elective subjects.

Students can choose from six program branches. Modules and subjects are well documented and generally appropriate, their themes are not repetitive.

The content of the subjects and modules is consistent with the type and level of the studies. Study subjects and modules are spread evenly over the semesters. However, the College should look again at the specialisation branches, as they could be a bit broader and more in line with international practice. In addition, the College should look again at the titles of subjects to avoid duplication, for example in ecology (environmental ecology and forest ecology) and in forest management areas (forest economics and management; forest management).

The content and methods of the subjects/modules are appropriate for the achievement of the intended learning outcomes. Lectures in the study program comprise 23 per cent, practical classes comprise 34 per cent, independent work of students comprises 43 per cent of the total time of studies. The portions of contact and independent work in full-time and part-time studies coincide.

The themes of subjects taught are in line with the learning outcomes. The *professional and specialization* practice of students is performed in forest enterprises, national and regional parks, logging companies, and private forest owners' cooperatives, with which cooperation agreements were signed.

Undergraduate college studies are completed by a final thesis of a narrow scope in the selected program branch (specialization) and a final exam. Students are free to choose the topic of the graduation thesis, while the methods and objects are agreed upon by the supervisor. The aim is to perform applied studies, with the elements of research.

In regard to the quality of the thesis, the summaries in English could be more comprehensive. Also, there should be more references in the theses and particularly international references. It is a recommendation to create a template for the structure of the English summary with a certain structure.

For better feedback from students, the Forestry student association needs creative support from the staff for more active participation by students in the future in the management of study programme.

The full scope of the programme is sufficient and the content is generally up-to-date. However, the use of more English in teaching is recommended. More and wider use of the remote learning methods is also recommended. The use of Moodle should be considered as an active learning tool instead of an information storage platform.

The content of the programme and equipment used for teaching reflects the latest achievements in science in forest and timber technologies.

In sum, the curriculum design meets the legal requirements. The spread of the subjects is even and the themes are not repeating.

- *The content of the subjects and modules is consistent with the type and level of the studies. However, the College should look again at the specialisation branches, as they could be a bit broader and more in line with international practice. In addition, the College should look again at the titles of subjects to avoid duplication.*
- *Modules and subjects are well documented and generally appropriate. The use of more English textbooks is recommended.*

- *The scope of the programme is sufficient to ensure learning outcomes and the content is generally up-to-date.*

2.3. Teaching staff

The study program is provided by staff meeting legal requirements.

The qualifications of the teaching staff are adequate to ensure learning outcomes. The Academic Council has defined qualification requirements for the College teachers and researchers. These are applied during the faculty accreditation which is conducted every five years, as well as when employing new teachers to work. The proportion of the program taught by professors and associated professors (with PhD qualifications) at ca 25% exceeds the minimum requirement of 10%.

There is intensive cooperation between College and researchers from the Institute of Forestry of Lithuanian Research Centre for Agriculture and Forestry (LRCAF). For example, supervisors for graduation theses during last five years are 25 teachers from the College and 14 researchers from the Institute of Forestry.

The number of the teaching staff is adequate to ensure learning outcomes. In 2012/2013 in the program, there were 39 teachers working. The number of teachers during the analyzed period was stable. The average age (49 years), number and turnover of the teaching staff are all at acceptable levels. Having calculated the ratio of teachers and students, it was found that on an average there are 14 students per teacher, which does not exceed the maximum limit of 20 students (maximum) per teacher.

The higher education institution creates conditions for the professional development of the teaching staff necessary for the provision of the program. The College has an aim and an action plan to improve teacher qualifications and in particular the number of teachers with PhD qualifications. Teachers gain practical and pedagogical experience in refresher courses, training courses and scientific - practical conferences.

35 teachers of the study program have practical experience of work in industrial enterprises. Most of the teachers are involved in various projects, workshops and seminars, which deal with practical issues of forestry, thus deepening their expertise.

The ratio of permanent teachers and invited teachers from other institutions ensures the quality and flexibility of the full-time undergraduate Forestry program. The expert team suggests increasing the number of foreign scientists teaching on the programme. This policy should allow for covering certain knowledge gaps in some subjects and increasing the international atmosphere of the professional bachelor.

There is intensive participation in international programs and cooperation between education institutions abroad.

The staff is engaged in conducting applied research and they produce a number of publications each year (137 scientific papers during evaluation period). The applied research in long-term projects specific to the fields of forestry should be increased. Particular attention should be paid to publication in refereed international journals.

In sum, the staffing for the programme is generally appropriate. The programme is taught by staff meeting the legal requirements

- *The proportion of the programme taught by lecturers with PhD exceeds the minimum requirement.*
- *The average age, number and turnover of the staff are both at acceptable levels.*
- *There is intensive cooperation between College and researchers from Research Institute. For example, supervisors for graduation theses during last five years are 25 teachers from the College and 14 researchers from the Research Institute.*
- *The ratio of permanent teachers and teachers invited from other institutions ensures the quality and flexibility of full-time undergraduate Forestry programme.*
- *The ratio of teachers and students: an average of 14 students per teacher does not exceed the maximum limit.*
- *The College has an aim and an action plan to improve teacher qualifications and in particular, the number of teachers with PhD qualifications.*
- *The staff are engaged in conducting applied research and they produce a number of publications each year. The applied research and publication specific to the fields of forest management should be intensified and improved. Particular attention should be paid to publication in refereed international journals.*
- *Based on the College self-analyses, research and publishing of articles in collaboration with foreign educational and research institutions are not sufficiently developed. The stated plan of the College is to intensify the process of teachers' professional development and to publish more research articles.*

2.4. Facilities and learning resources

The premises for studies are very suitable both in their size and in quality. The College worked hard during previous years updating the facilities, carrying out their maintenance and repairs. The teaching and learning equipment (laboratory and computer equipment, consumables) are very suitable both in size and in quality. The premises are spacious, in very good condition and are very well equipped with computer - visual display equipment.

Refurbishment projects are developed in order to apply for funding from a variety of national and EU funds. For the Forestry professional bachelor's study program, auditoriums and

laboratories in the main KFEECHE building (total area - 4021.26 m²) and building No2 (total area - 1221 m²) are used.

All classrooms and laboratories are equipped with modern audio-visual equipment. Information technology is widely and intensively used in the College. The facilities provided for the practice elements of the programme were also very good. The expert team also recommends paying attention to providing access for disabled people to all the facilities and premises, although this problem relates the University more than the Programme.

Teaching materials are very good and are generally provided in sufficient quantities. Students have the opportunity to practice working with modern forest machine simulators and mini manipulators.

The higher education institution has very good arrangements for students' practice. During training practices meant for the consolidation of practical knowledge, the primary training base comprises facilities located in SE Dubrava Experimental - Training Forest Enterprise.

Teaching materials (textbooks, books, periodical publications, databases) are adequate and accessible. The quality of the library is very good in the provision of appropriate texts and other resources. The students have the possibility to visit the library in the neighbouring Institute of Forestry of LRCAF. However the work of library is recommended to change in some details. The College should consider longer library opening hours or using other premises for study area. The implementation of a self-service and provision of more texts in English would further enhance the very good library service to the students.

In sum, it was evident to the expert team that the the facilities and resources of the College are unique in their support for a Forestry Bachelor programme. The facilities and resources have been built up over a long number of years and are ideally suited to the programme.

- *The premises are spacious, in good condition and are well equipped.*
- *The facilities provided for the practice elements of the programme were also very good.*
- *The library is of a very good standard in terms of physical facilities, material stocks and online access. Some small changes in work of library is recommended.*
- *Teaching materials are good and are generally provided in sufficient quantities.*
- *The teaching and learning equipment (laboratory and computer equipment, consumables) are very suitable both in size and quality.*
- *Teaching materials (textbooks, books, periodical publications, databases) are very good and accessible. During practice, students are given the opportunity to gain practical experience and entrepreneurial skills. Students also have the opportunity to practice working with modern forest machine simulators, mini manipulators.*
- *On the basis of the College self analyses, it is intended to strengthen the methodological resources, more funds will be allocated to the purchase of new literature and it is proposed to develop distance learning.*

2.5. Study process and students' performance assessment

The admission to the programme is by way of the general admission system of Lithuania. The admission requirements are well founded.

The number of students admitted is relatively stable. The ratio of students admitted in 2006 – 2013 who have completed the whole course of full-time studies is low. It ranged from 36 percent to 64 percent (on average 53.4 percent), while in part-time - from 33 percent to 75 percent. In order to achieve successful adaptation of College students, each degree programme has a special subject for the introduction to the studies. On the College website, students can access the most important documents regulating the programme.

The organisation of the studies is according to normal procedures and it ensures that the learning outcomes are achieved. While students participate in applied research, the College should ensure greater participation by students in this area.

The experts acknowledge that the College has a number of initiatives for internationalisation but suggest that further intensification of efforts in this area is required. Staff and student English skills should be improved. More subjects need to be taught in English. There should be more information for students on the Moodle system including more information in English.

The College provides appropriate academic and social supports for the students. Appropriate arrangements are in place for the assessment of the students' performance including the assessment of the final thesis and exam. Students have the opportunity to participate in student mobility programmes.

The assessment system of students performance is clear, adequate and publicly available. The professional activities of the majority of graduates meets the programme provider's expectation.

The experts discussion with social partners suggests that the demand for graduates will be good.

In sum, the study process for this programme is good.

- *The admission to the programme is by way of the general admission system of Lithuania.*
- *The number of students admitted is relatively stable.*
- *The average drop-out rate of students seems normal.*

- *The organisation of the studies is according to normal procedures and it ensures that the learning outcomes are achieved.*
- *While students participate in applied research, the College should ensure greater participation by students in this area.*
- *The experts acknowledge that College has a number of initiatives for internationalisation but suggest that further intensification of efforts in this area is required.*
- *Staff and student English skills should be improved. More subjects need to be taught in English.*
- *Appropriate arrangements are in place for the assessment of the students' performance including the assessment of the final thesis.*
- *The experts discussion with social partners suggest that the demand for graduates will be good.*
- *On the basis of the College self analysis it is planned to reduce the 'drop-out' of students and distance learning is being developed. To further enhance employment possibilities of graduates, it is planned to organize more meetings with potential employers.*

2.6. Programme management

The management of the programme is on a good level and follows the normal procedures.

A regular quality analysis and improvement process is implemented.

The parties involved in the management of the programme include:

- The Academic Council
- Committee of Studies
- Forestry Department as the main organisers of the studies and the applied research
- Forestry Program Committee
- College Quality Assurance Manager
- College Students representative
- Administration of the College
- The qualification Committee

The program objectives and expected learning outcomes are reviewed annually and when necessary. The parties involved in the management of the programme have clearly specified roles and responsibilities.

Procedures are in place for the regular gathering and analysis of information from students and other stakeholders on the implementation of the programme.

The outcomes of internal and external evaluations are used for improvement of the programme. Quality assurance measures are in place and are effective. The social partners are really engaged with the Programme participating in the academic activities, panels and committees. However, student associations and alumni participation in programme management and quality assurance could be increased and incentivised.

In sum, the management of the programme is on a good level and follows the normal procedures.

- *The parties involved in the management of the programme have clearly specified roles and responsibilities.*
- *Procedures are in place for the regular gathering and analysis of information from students and other stakeholders on the implementation of the programme.*
- *Evidence was provided to indicate that feedback is used to ensure the improvement of the programme.*
- *Quality assurance measures are in place and are effective.*

III. RECOMMENDATIONS

1. The College should look again at the titles of subjects to avoid duplication, for example in ecology (environmental ecology and forest ecology) and in forest management areas (forest economics and management; forest management).
2. There should be more information for students on the Moodle system including more information in English.
3. The College should look again at the specialisation branches as they could be a bit broader and more in line with international practice.
4. In regard to the quality of the thesis, the summaries in English could be more comprehensive. Also, there should be more references and particularly international references. It is recommended to create a template for the structure of English summary.
5. The Forestry student association needs support and encouragement from the staff to be more active in participating in the management of study programme.
6. Alumni activities in study programme management and organising of the feedback should be more systematised and active and could be incentivised.
7. In line with developments in wider society, the College should consider the access needs of disabled students.
8. The quality of library is very good in the provision of appropriate texts and other resources. However the work of library is recommended to change in some details. The College should consider longer library opening hours. The implementation of a self-

service and provision of more texts in English would further enhance the very good library service to the students.

9. The College should ensure greater participation by students in applied research.
10. Further intensification of efforts in the area of internationalisation is required.
11. Staff and student English skills should be improved.
12. More subjects should be taught in English.

IV. EXAMPLES OF EXCELLENCE (GOOD PRACTICE)*

- The aims and learning outcomes of Forestry study program at Kaunas Forestry and Environmental Engineering College are most appropriate for the Professional Bachelor programme in forestry. The unique position of the College as the only provider of professional bachelor education in forestry in Lithuania makes it particularly important that this is the case. The aims and learning outcomes are pitched at the appropriate level. They are ideally suited to the needs of the industry and meet very well the academic requirements at this level. The excellent balance between the practical and theoretical elements of the programme ensures that it meets the needs of the stakeholders and also ensures that graduates are very well prepared for progression to university studies should they wish to do so.
- The facilities and resources of the College are unique in their support for this Forestry Professional Bachelor programme. These facilities and resources have been built up over a long number of years and are ideally suited to this programme. Classrooms, laboratories and general facilities are very good. In addition, the resources for students' practice and the practical elements of the course are excellent. These include a combination of on-site facilities and facilities and resources made available to the College by the forestry industry. Of particular note is the timber harvesting equipment available for students including an on-campus full-scale timber harvesting simulator.

V. SUMMARY

The programme aims and learning outcomes are very well articulated and are very appropriate to studies in Forestry at professional bachelor level.

- The study program, preparing engineers for forestry is unique in Lithuania, such a program is not available in other colleges.
- The aims reflect very well the professional requirements and the needs of the forest management and forest industry labour market. The name of the programme, the learning outcomes, the programme contents and the qualification offered are all

compatible. However the name of the branch of study area (Forest growing) should be changed (at least in English version), as the content of the program is broader.

- The program objectives and study results are available on the website. The College interacts with social partners and feedback is very good.
- Practical and theoretical sides of the program are very well balanced.

The curriculum design meets the legal requirements. The spread of the subjects is even and the themes are not repeating.

- Forestry degree programme meets the requirements of the law.
- Students can choose from six program branches. However, the College should look again at the specialisation branches, as they could be a bit broader and more in line with international practice.
- In regard to the quality of the thesis, the summaries in English could be more comprehensive. Also, there should be more references and particularly international references. It is recommended to create a template for the structure of the English summary with a certain structure.
- The Forestry student association needs more creative support from the staff for more active student participation in the management of the study programme.
- The College should look again at the titles of subjects to avoid duplication, for example in ecology (environmental ecology and forest ecology) and in forest management areas (forest economics and management; forest management).
- The use of more English in teaching is also recommended.
- The scope of the programme is sufficient and the content is generally up-to-date.
- Students perform professional practice in forest enterprises, national and regional parks, logging companies, and private forest owners' cooperatives, with which cooperation agreements were signed.

The teaching staff for the programme is appropriate.

- The programme is taught by staff meeting the legal requirements
- The proportion of the programme taught by professors and associated professors (with PhD qualifications) at ca 25% exceeds the minimum requirement of 10%.
- There is intensive cooperation between the College and researchers from The Institute of Forestry of the Lithuanian Research Centre for Agriculture and Forestry. For example, supervisors for graduation theses during last five years are 25 teachers from the College and 14 researchers from the Institute.

- Having calculated the ratio of teachers and students, it was found that on an average there are 14 students per teacher, which does not exceed the maximum limit of 20 students per teacher.
- The average age (49 years), number and turnover of the teaching staff are all at acceptable levels.
- The staff is engaged in conducting applied research and they produce a number of publications each year (137 scientific papers during evaluation period). The applied research in long term projects specific to the fields of forestry should be increased.
- Particular attention should be paid to publication in refereed international journals.
- The College has an aim and an action plan to improve teacher qualifications and in particular the number of teachers with PhD qualifications.

It was evident to the expert team that the College has very good **facilities and learning resources** for this programme.

- The College worked hard during previous years updating the facilities, carrying out their maintenance and repairs. The premises are spacious, in very good condition and are very well equipped with computer - visual display equipment.
- Refurbishment projects are developed in order to apply for funding from a variety of national and EU funds
- The facilities provided for the practice elements of the programme were also very good.
- Teaching materials are very good and are generally provided in sufficient quantities.
- Students have the opportunity to practice working with modern forest machine simulators, mini manipulators.
- During training practices meant for the consolidation of practical knowledge, the primary training base comprises facilities located in SE Dubrava Experimental - Training Forest Enterprise.
- The quality of library is very good in the provision of appropriate texts and other resources. However, the College could consider longer library opening hours. The implementation of self-service facilities and the provision of more texts in English would further enhance the very good service the Library is currently providing to the students and is recommended.

The study process and students performance assessment for this programme is good.

- The admission to the programme is by way of the general admission system of Lithuania. The number of students admitted is relatively stable.
- Enrollment to the Forestry program during the analyzed period has been stable.
- The ratio of students admitted in 2006 – 2013 who have completed the whole course of full-time studies is low It ranged from 36 percent to 64 percent (on average 53.4 percent), while in part-time - from 33 percent to 75 percent.

- The organisation of the studies is according to normal procedures and it ensures that the learning outcomes are achieved.
- While students participate in applied research, the College should ensure greater participation by students in this area.
- The experts acknowledge that the College has a number of initiatives for internationalisation but suggest that further intensification of efforts in this area is required.
- Staff and student English skills should be improved.
- More subjects need to be taught in English.
- There should be more information for students on the Moodle system including more information in English.
- The College provides appropriate academic and social supports for the students.
- Appropriate arrangements are in place for the assessment of the students' performance including the assessment of the final thesis and exam.
- The experts' discussion with social partners suggests that the demand for graduates will be good.

The management of the programme is on a good level and follows the normal procedures.

- A regular quality analysis and improvement process is going on.
- The program objectives and expected learning outcomes are reviewed annually and when necessary.
- The parties involved in the management of the programme have clearly specified roles and responsibilities.
- Procedures are in place for the regular gathering and analysis of information from students and other stakeholders on the implementation of the programme.
- Quality assurance measures are in place and are effective.
- Student associations and alumni participation in programme management and quality assurance could be increased and incentivised.

VI. GENERAL ASSESSMENT

The study programme *Forestry* (state code – 653D50001) at Kaunas Forestry and Environmental Engineering College of Higher Education 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	4
2.	Curriculum design	3
3.	Teaching staff	3
4.	Facilities and learning resources	4
5.	Study process and students' performance assessment	3
6.	Programme management	3
	Total:	20

*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:	Brian O'Connor
Grupės nariai: Team members:	Prof. dr. Jose Antonio Bonet
	Prof. dr. Jan-Erik Hällgren
	Prof. dr. Hardi Tullus
	Dr. Kęstutis Armolaitis
	Justinas Staugaitis

**KAUNO MIŠKŲ IR APLINKOS INŽINERIJOS KOLEGIJOS PIRMOS PAKOPOS
STUDIJŲ PROGRAMOS MIŠKO ŪKIS (VALSTYBINIS KODAS – 653D50001)
2014-12-09 EKSPERTINIO VERTINIMO IŠVADŲ NR. SV4-595 IŠRAŠAS**

<...>

VI. APIBENDRINAMASIS ĮVERTINIMAS

Kauno miškų ir aplinkos inžinerijos studijų programa *Miško ūkis* (valstybinis kodas – 653D50001) vertinama **teigiamai**.

Eil. Nr.	Vertinimo sritis	Srities įvertinimas, balais*
1.	Programos tikslai ir numatomi studijų rezultatai	4
2.	Programos sandara	3
3.	Personalas	3
4.	Materialieji ištekliai	4
5.	Studijų eiga ir jos vertinimas	3
6.	Programos vadyba	3
	Iš viso:	20

* 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)

1. <...>

V. SANTRAUKA

Programos tikslai ir studijų rezultatai yra itin gerai parengti ir puikiai tinka Miško ūkio studijoms profesinio bakalauro laipsniui įgyti.

- Studijų programa, pagal kurią rengiami miško ūkio inžinieriai, yra unikali Lietuvoje; tokia programa nėra įgyvendinama kitose šalies kolegijose.
- Tikslai labai gerai atspindi profesinius reikalavimus ir miškų valdymo bei miškų pramonės darbo rinkos poreikius. Programos pavadinimas, studijų rezultatai, turinys ir siūloma kvalifikacija yra suderinti. Tačiau turėtų būti pakeistas studijų srities specializacijos (Miško auginimo) pavadinimas (bent jau anglų kalba), nes programos turinys yra platesnis.
- Programos tikslai ir studijų rezultatai pateikiami kolegijos tinklapyje. Kolegija bendrauja su socialiniais partneriais, kurie teikia labai gerą grįžtamąjį ryšį.
- Praktiniai ir teoriniai programos aspektai yra puikiai suderinti.

Studijų programos struktūra atitinka teisinius reikalavimus. Dalykų paskirstymas yra tolygus, o temos nesikartoja.

- Miško ūkio studijų programa atitinka teisės aktų reikalavimus.
- Studentai gali pasirinkti iš šešių programos specializacijų. Tačiau Kolegija turėtų dar kartą apsvarstyti specializacijų rūšis, kad jos būtų kiek platesnio pobūdžio ir labiau atitiktų tarptautinę praktiką.
- Vertinant baigiamųjų darbų kokybę, santraukos anglų kalba galėtų būti išsamesnės. Be to, galėtų būti pateikiama daugiau nuorodų, ypač tarptautinių. Rekomenduojama sukurti baigiamųjų darbų santraukos anglų kalba pavyzdinę formą su tinkama struktūra.
- Miško ūkio programos studentų asociacijai reikalinga kūrybiškesnė darbuotojų parama, kad studentai aktyviau dalyvautų studijų programos valdymo procese.
- Kolegija turėtų dar kartą persvarstyti studijų dalykų pavadinimus, kad būtų išvengta dubliavimosi, pavyzdžiui, ekologijos (aplinkos ekologijos ir miškų ekologijos) ir miškų tvarkymo (miškų ekonomikos ir tvarkymo, miškotvarkos) srityse.
- Be to, rekomenduojama naudoti daugiau vadovėlių anglų kalba.
- Programos apimtis yra pakankama, o turinys yra dažnai atnaujinamas.
- Studentai atlieka profesinę praktiką miškininkystės įmonėse, nacionaliniuose ir regioniniuose parkuose, medienos ruošos įmonėse, taip pat privačių miškų savininkų kooperatyvuose, su kuriais pasirašytos bendradarbiavimo sutartys.

Pedagoginiai darbuotojai, dėstantys šią studijų programą, yra kompetentingi.

- Programoje dėstantys dėstytojai atitinka teisinius reikalavimus.
- Programą dėstančių profesorių ir docentų (turinčių daktaro kvalifikacinį laipsnį) santykis, kuris yra maždaug 25 proc., viršija minimalų 10 proc. reikalavimą.
- Kolegija glaudžiai bendradarbiauja su mokslo darbuotojais iš Lietuvos miškų instituto prie Lietuvos agrarinių ir miškų mokslų centro. Pavyzdžiui, baigiamųjų darbų vadovais per pastaruosius penkerius metus buvo 25 kolegijos mokytojai ir 14 Miškų instituto mokslo darbuotojų.
- Apskaičiuojant dėstytojų ir studentų santykį, nustatyta, kad vienam dėstytojui tenka vidutiniškai 14 studentų – tai neviršija didžiausios vienam mokytojui leistinos 20 studentų ribos.
- Vidutinis darbuotojų amžius yra 49 metai, darbuotojų skaičius ir kaita yra priimtino lygio.
- Darbuotojai kiekvienais metais atlieka mokslo taikomuosius tyrimus ir leidžia leidinius (per vertinimo laikotarpį paskelbti 137 moksliniai straipsniai). Turėtų būti didinamas mokslo taikomųjų tyrimų skaičius ilgalaikiuose projektuose, susijusiuose su miškų ūkio sritimis.
- Ypač daug dėmesio turėtų būti skiriama straipsniams skelbti recenzuojamuose tarptautiniuose mokslo žurnaluose.

- Kolegija siekia tikslo ir yra parengusi veiksmų planą, kaip gerinti dėstytojų kvalifikaciją, ypač didinti dėstytojų, turinčių daktaro kvalifikacinį laipsnį, skaičių.

Vertinimo grupei buvo akivaizdu, kad kolegija šiai studijų programai turi labai gerus **materialiuosius išteklius**.

- Kolegija praėjusiais metais daug dirbo, atnaujindama įrangą, atlikdama jų techninę priežiūrą ir remonto darbus. Patalpos yra erdvios, geros būklės ir labai gerai aprūpintos kompiuterine bei vaizdo įranga.
- Rengiami atnaujinti projektai kreipiantis dėl finansavimo iš įvairių nacionalinių ir ES fondų.
- Taip pat, labai geri ištekliai, skirti su programa siejamam praktiniam mokymui įgyvendinti.
- Mokymosi priemonės yra labai geros ir turimos pakankama apimtimi.
- Studentai turi galimybę atlikti praktinį darbą su šiuolaikiniais miškų mašinų simulatoriais, minimanipulatoriais.
- Praktinis mokymas, skirtas praktiniams įgūdžiams įtvirtinti, vyksta pagrindinėje mokymo bazėje, kuri įrengta Dubravos eksperimentinėje mokomojoje miškų urėdijoje.
- Bibliotekos veiklos kokybė yra labai gera; ši biblioteka aprūpina tinkamais vadovėliais ir kitais mokymo/-si ištekliais. Tačiau Kolegija galėtų nustatyti ilgesnes bibliotekos darbo valandas. Rekomenduotina įdiegti savitarnos sistemą ir aprūpinti biblioteką didesniu leidinių anglų kalba skaičiumi, nes tai dar labiau pagerintų bibliotekos šiuo metu siūlomų studentams paslaugų kokybę.

Studijų procesas ir studentų mokymosi rezultatų vertinimas įgyvendinant šią programą yra tinkami.

- Priėmimas į programą Lietuvoje vyksta pagal bendrąją priėmimo į mokymo įstaigas sistemą. Priimamų studentų skaičius yra stabilus.
- Priėmimas į Miško ūkio programą analizuojamu laikotarpiu buvo stabilus.
- 2006–2013 m. priimtų studentų, baigusių visą dieninių studijų kursą, santykis yra žemas. Jis svyruoja nuo 36 iki 64 proc. (vidutiniškai 53,4 proc.), o neakivaizdinio skyriaus studentų – nuo 33 iki 75 proc.
- Studijos organizuojamos įprasta (nusistovėjusia) tvarka ir tai užtikrina numatytų studijų rezultatų pasiekimą.
- Kolegija turėtų užtikrinti aktyvesnį studentų dalyvavimą mokslo taikomųjų tyrimų veikloje.
- Ekspertų grupės nariai pripažįsta, kad Kolegijoje yra taikomos keleta internacionalizavimo iniciatyvų, tačiau siūloma, kad šioje srityje reikalinga ir toliau intensyviai dirbti.
- Turėtų būti gerinami darbuotojų ir studentų anglų kalbos įgūdžiai.
- Daugiau studijų dalykų turėtų būti dėstoma anglų kalba.

- Studentams daugiau informacijos turėtų būti teikiama apie „Moodle“ sistemą, įskaitant informaciją anglų kalba.
- Kolegija teikia tinkamą akademinę ir socialinę paramą studentams.
- Įdiegtos geros priemonės studentų mokymosi rezultatams įvertinti, įskaitant baigiamųjų darbų ir egzaminų vertinimą.
- Ekspertų grupės narių diskusijos su socialiniais partneriais rodo, kad absolventų paklausa yra ir bus gera.

Programos valdymas atitinka reikalavimus ir vykdomas vadovaujantis įprasta procedūra.

- Atliekama nuolatinė studijų kokybės analizė ir vyksta studijų kokybės tobulinimo procesas.
- Programos tikslai ir numatomi studijų rezultatai iš naujo apsvarstomi, esant būtinybei, kiekvienais studijų metais.
- Programos valdyme dalyvaujančios šalys turi aiškiai apibrėžtas funkcijas ir atsakomybę.
- Įdiegtos procedūros, pagal kurias nuolat renkama ir analizuojama informacija, gaunama iš studentų ir kitų socialinių dalininkų, apie programos įgyvendinimą.
- Įdiegtos ir efektyviai taikomos kokybės užtikrinimo priemonės.
- Studentų atstovybės ir absolventų dalyvavimas programos valdymo ir kokybės užtikrinimo procesuose galėtų būti intensyvinamas ir labiau skatinamas.

2. <...>

III. REKOMENDACIJOS

1. Kolegija turėtų dar kartą apsvarstyti studijų dalykų pavadinimus, kad būtų išvengta dubliavimosi, pavyzdžiui, ekologijos (aplinkos ekologijos ir miškų ekologijos) ir miškų tvarkymo (miškų ekonomikos ir tvarkymo, miškotvarkos) srityse.
2. Studentams turėtų būti teikiama daugiau informacijos apie „Moodle“ sistemą, įskaitant informaciją anglų kalba.
3. Kolegija turėtų dar kartą iš naujo apsvarstyti specializacijas, kad jos būtų šiek tiek platesnės ir labiau atitiktų tarptautinę praktiką.
4. Vertinant baigiamųjų darbų kokybę, santraukos anglų kalba galėtų būti išsamesnės. Be to, galėtų būti pateikiama daugiau nuorodų į literatūros šaltinius, ypač tarptautinius. Rekomenduojama sukurti baigiamųjų darbų santraukos anglų kalba pavyzdinę formą.
5. Miško ūkio programos studentų atstovybei reikalinga kolegijos darbuotojų parama ir skatinimas, kad jie aktyviau dalyvautų studijų programos valdymo procesuose.
6. Absolventų veikla valdant studijų programą ir renkant grįžtamąjį ryšį dėl studijų kokybės turėtų būti sistemingesnė ir aktyvesnė; ją reikėtų labiau skatinti.
7. Atsižvelgdama į platesnius visuomenės poreikius, Kolegija turėtų apsvarstyti studijų prieigos neįgaliesiems studentams galimybių gerinimą.

8. Bibliotekos veiklos kokybė yra labai gera; ji aprūpina tinkamais vadovėliais ir kitais ištekliais. Tačiau reikalingi pokyčiai organizuojant bibliotekos darbą. Kolegija turėtų nustatyti ilgesnes bibliotekos darbo valandas. Savitarnos sistemos įdiegimas ir bibliotekos aprūpinimas didesniu leidinių anglų kalba skaičiumi dar labiau pagerintų bibliotekos teikiamų paslaugų studentams kokybę.
9. Kolegija turėtų užtikrinti, kad daugiau studentų dalyvautų mokslo taikomųjų tyrimų veikloje.
10. Reikia toliau didinti programos tarptautiškumą.
11. Turėtų būti gerinami darbuotojų ir studentų anglų kalbos įgūdžiai.
12. Daugiau studijų dalykų turėtų būti dėstoma anglų kalba.

<...>

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)