STUDIJŲ KOKYBĖS VERTINIMO CENTRAS

Šiaulių valstybinės kolegijos

STUDIJŲ PROGRAMOS

TRANSPORTO LOGISTIKOS TECHNOLOGIJOS (653E20001)

VERTINIMO IŠVADOS

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EVALUATION REPORT

OF *TRANSPORT LOGISTICS TECHNOLOGIES (653E20001)*

STUDY PROGRAMME

at Šiauliai State College

1. **Prof. Dr. Clive Neal-Sturgess (team leader)** *academic,*

2. **Mr. Ger Reilly,** *academic,*

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4. **Prof. Juri Lavrentjev,** *academic,*

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Išvados parengtos anglų kalba
Report language - English

Vilnius
2015

DUOMENYS APIE ĮVERTINTĄ PROGRAMĄ

Studijų programos pavadinimas	Transporto logistikos technologijos
Valstybinis kodas	653E20001
Studijų sritis	Technologijos mokslai
Studijų kryptis	Sausumos transporto inžinerija
Studijų programos rūšis	Koleginės studijos
Studijų pakopa	Pirma
Studijų forma (trukmė metais)	Nuolatinė (3) ištęstinė (4)
Studijų programos apimtis kreditais	180
Suteikiamas laipsnis ir (ar) profesinė kvalifikacija	Sausumos transporto inžinerijos profesinis bakalauras
Studijų programos įregistravimo data	2004-10-21, Nr. 1514

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INFORMATION ON EVALUATED STUDY PROGRAMME

Title of the study programme	Transport Logistics Technologies
State code	653E20001
Study area	Technological studies
Study field	Transport engineering
Type of the study programme	College studies
Study cycle	First
Study mode (length in years)	Full time (3) Part time (4)
Volume of the study programme in credits	180
Degree and (or) professional qualifications awarded	Professional Bachelor in Land Transport Engineering
Date of registration of the study programme	October 21, 2004, No. 1514

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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.	College Strategic Plan; Short Medium and Long Term
2.	Faculty Strategic Plan
3.	College Quality Manual and Action Plan
4.	College Marketing Plan
5.	Department Action Plan
6.	Programme Action Plan

7.	College Staff Development Plan
8.	Individual Staff Development Plans and Records of Attendance at Training Events
9.	Programme Handbook
10.	Placement/Practice Handbook
11.	Internal College Thesis Procedures Document
12.	Standard Textbook for Thesis Planning and Preparation
13.	Procedure for Evaluation of Recognised Prior Learning
14.	Minutes of Programme Committee Meetings/Actions
15.	Programme Theses and Evidence of Coursework
16.	Evidence of Coursework Completed in Various Languages

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

Siauliai State College (SSC) is a higher educational institution in Lithuania. The college has two faculties in (1) Business & Technology and (2) Healthcare. The college governing structure comprises of College Council, Academic Council and the College Director. The two faculties are organised under the direct management of the 3 Deputy College Directors who have responsibility for Academic Activities, Strategic Development and Infrastructure.

This programme which is delivered in part time and full time mode is based in the Transport Engineering Department which is organised in the Faculty of Business & Technology. This programme was approved and registered on 21 October, 2004 by the Ministry of Education and Science of Lithuanian Republic, Order No. ISAK-1239, and this is the first occasion that this programme has been externally evaluated. The main aim of the programme is to educate specialist transport logistics professionals who can organise, monitor and evaluate logistics processes using information technology.

In preparation for this assessment SSC organised a self-assessment working group under the order of the College Director to conduct the relevant internal self-assessment and to prepare a self-study report for the assessment process. Under the guidance of the Centre for Quality Assessment in Higher Education the self-assessment group began work in January 2014 and completed its work with the submission of the self-study report at the end of April 2015. The self-study document is well prepared and provides satisfactory details of the self-study process in all of the key areas of the programme and college activity that require evaluation as part of this process. It is informative and at the evaluation meeting with the self-study group they were able to supplement this information with additional analysis relevant to the evaluation process which will lead to future programme enhancement.

1.4. The Review Team

        The review team was completed according to the *Description of experts' recruitment*, approved by order No. 1-01-151 of Acting Director of the Centre for Quality Assessment in Higher Education. The Review Visit to HEI was conducted by the team on *13th of October 2015*.

1. **Prof. Dr. Clive Neal-Sturgess (team leader)** Emeritus Professor of Mechanical Engineering, University of Birmingham (UK)**,**

2. **Prof. Juri Lavrentjev,** Professor of Automotive Engineering, Department of Machinery, Tallinn University of Technology (Estonia),

3. **Prof. Marianna Jacyna,** Professor at Warsaw University of Technology, Faculty of Transport (Poland)

4. **Mr. Ger Reilly,** Head of School, Mechanical & Design Engineering Dublin Institute of Technology (Ireland)**,**

5. **Mr. Gintaras Vilda,** Director of "Lithuanian Engineering Industry Association" (Lithuania)**,**

6. **Ms. Monika Simaškaitė,** Student at Kaunas University of Technology (Lithuania)

II. PROGRAMME ANALYSIS

2.1. Programme aims and learning outcomes

The self-study process for this programme and the details in the module descriptors show that overall the programme aim and the learning outcomes are all well aligned with each other. At the evaluation meeting we were informed that the College has compared this programme to similar programmes in KTK, KVK and Tallinn University of Applied Sciences to assure them o the international relevance of the programme and its learning outcomes which is commendable.

To align the learning outcomes of the programme with the needs of industry and local businesses SSC initially used surveys and company engagement at the programme development phase. The learning outcomes were reviewed and amended in 2011, 2012 and 2013 using social partners from local and regional logistics companies and groups derived from the Šiauliai Carriers Club. While the programme is intended to prepare graduates for work in land transport logistics organisations there is a need to also set land transport in the context of all transport technology as there is a strong interconnection between land, rail, air and sea transport. There was no significant evidence of this in the learning outcomes or the supporting module content and this needs to be reviewed.

From the self-evaluation report and the meeting with social partners there was evidence of that the college provides social partners with opportunities for feedback on this programme and the required graduate attributes which drives the learning outcomes. This is commendable. From Staff CVs provided in the self-study report and from the meeting with the teaching staff information provided demonstrated that many of the staff are members of the Lithuanian Association of Lecturers and Teachers of Automotive Transport and that their involvement in this association provides a perspective on the academic relevance of the programme learning outcomes when compared to the activity of other colleges.

The learning outcomes have been developed based on standard regulatory and best practice documents such as the 'Dublin Descriptors' and relevant EU programme implementation guidelines such as the 'European Higher Education Area Qualifications Framework' and the 'European Qualifications Framework for Lifelong Learning'. They are also aligned to the European Credit Transfer System (ECTS) and the requirements of EUR ACE. In addition, the learning outcomes have been designed to meet the needs of the logistics industry and derived from the Road Transport Technologist Training Standard and the European Logistics Specialist Qualification Standards.

Overall there is evidence from the self-evaluation report and the evaluation meeting with staff that the learning outcomes are strongly correlated with the requirements of the first study cycle for professional bachelor degrees in terms of knowledge application and special skills but not to the same extent in research and social/personal skills. Perhaps this is something that could be reviewed so that there is better balance across all four areas.

The following remarks are for consideration to enhance the aim and learning outcomes:

1. The English translation of the programme aim is very broad and quite long and needs to be either shortened or maybe subdivided into more succinct component parts to support enhanced mapping of the programme objectives to the required themes embedded within the programme. From the documentation these themes appear generally as:

a. Logistics and logistics process and distribution.

b. Transport and warehousing technology

c. Personal development and management skills

2. The English translation of programme learning outcomes 2, 5, 10, 11 and 12 is not so clear and needs to be rewritten to enhance the accessibility of the information.

From the evaluation the learning outcomes and the programme aim are in line with the requirements for an award at this level, and overall the programme strikes a good balance in support of these learning outcomes in the pedagogical approach and curriculum as described later. There is generally good compatibility between outcomes and content and the variation in assessment methods is adequate to ensure that graduates are meeting learning outcomes. The title of the programme was changed in 2014 to the current name which more correctly reflects the role of the graduates working in this professional area as well as the programme aims. Therefore, it can also be concluded that the programme name is now consistent with the programme. This title is also distinguished from other programme titles used in the transport department in SSC from which graduates with quite different attributes are graduated.

2.2. Curriculum design

The self-evaluation report and annex with module descriptors demonstrate that the programme meets the legal requirements for a programme of this type. This programme consists of 180 ECTS of which 135 ECTS/ (75%) is allocated to study field subjects/practices and the remainder is allocated as follows: 15 ECTS/ (8%) for general subjects, and 30ECTS/ (17%), for elective subjects. The programme comprises 3616 hours of learning in total with ~ 1800 allocated to each of direct contact learning and self-directed learning and 1609 hours or 61 ECTS of learning is for college practical/laboratory work which also includes educational and

professional work practices equivalent to 30 ECTS some of which is supported by both mandatory and elective practice options. These key metrics show the programme meets the criteria for professional bachelor study cycle as stipulated by the Ministerial Order No V-501. The evaluation shows that the programme structure is compliant for both full-time and part-time modes. Evidence was provided that the college pays attention to recognition of prior learning (RPL) as a means of advanced entry and the RPL process which is based on applicant competences and award of equivalent credits was reviewed as satisfactory at the evaluation meeting.

From the programme documents and the evaluation meetings with staff there is evidence the programme structure is generally robust with basic sciences covered early in the programme. This is a good approach and it provides for a phased introduction in Years 2 and onwards in the programme specialism areas. The specialisms of the programme are correctly placed in later semesters when students have a gained complete understanding of the fundamentals of transport technology and the principles of logistics and how these main areas of knowledge are interconnected. The learning outcomes at each stage of the programme as typified in the module descriptors are relevant to the module content and in line with the overall programme schedule and the development of the learning outcomes in the programme. There appears to be a high emphasis on transport/logistics technology specific content and there is scope for additional focus on developing graduate attribute skills in areas like quality assurance, lean principles and business management with emphasis on logistics companies as well as on personal and problems solving skills which are all transferrable.

For a programme of this type and with this aim and learning outcomes the scope of the programme is satisfactory and appropriate. The spread of the study programme across all years of study is comparable to that used in all other EU countries; e.g. students take 60 ECTS / Year of study in FT mode. Additionally, the learner is expected to spend typically 21 hours for every 1 ECT. In addition, students are expected to spend typically 50% of their study time on independent work which is broadly in line with similar programmes in other EU countries for a programme of this type.

The following additional analysis is specific to the overall content of some modules and areas of study in the programme:

- Overall approximately 50% of the module content is closely related to the logistics and the process of planning, selecting and analysing in that context. This is commendable.
- The interconnectivity between modules is not always apparent, especially in the case of prerequisites and this could be better clarified in module descriptors.

- It is commendable that some modules are completely assessed by use of project work, particularly later in the programme when students are developing those skills that support independent research and reporting.
- The module on applied research methods should also include some theory on problem formulation and the methodology for referencing from scientific works.
- The relationship between theory, practical work and module title is not clear in FREIGHT VEHICLES AND EMBARKATIONS.
- The relationship between programme learning and module learning outcomes are not clear for some modules e.g. ENGINEERING AND COMPUTER GRAPHICS, INFORMATION TECHNOLOGIES IN LOGISTICS.
- The module on ENVIRONMENTAL AND HUMAN SAFETY is a good module and the content is well applied to the programme and the learning outcomes.
- There is a need to further develop aspects of multi-modal transport in appropriate modules.
- There is a need to add additional practical work with additional appropriate technology in logistics modules.

2.3. Teaching staff

The programme meets the stipulated requirements for the percentage of staff required to teach the programme vis-à-vis field study subjects and level and range of experience. Additionally, there is evidence from the self-study report analysis and the CVs of staff that there is a high emphasis on the programme being resourced by teachers with a high academic qualification and relevant experience. There are 18 staff who have scientific degrees and over 55% have more than 3 years relevant working experience in the area. 18 of the 26 teachers working on the programme are in the specialist area and overall 6 have PhDs which is commendable. At the evaluation meeting one of the three teachers who teaches on the programme from social partners was present and he provided clear evidence of the good connection between the business environment and the staff and students and the relevance of staff experience and knowledge.

The student teacher ratio (STR) which is 19 for this programme is generally in line with the OECD figure for programmes of this level and type. The age profile of staff on this programme is very much in line with requirements of a programme of this type and there is a good spread of teachers in the main age categories. This minimises the risk to the programme from loss of teachers with high academic ability and programme specific knowledge. The

accumulated teaching experience of the staff is high and 20 of the teachers have pedagogical experience over 6 years. This substantial experience creates a stable learning environment for the students and the programme. There is a committee of 5 teachers who generally take care of the graduation paper including teaching staff and practitioners with reviewers from industry who also have at least 3 years' relevant experience which is commendable.

The college places a good emphasis on teacher academic development and supports this through funding staff participation in conferences, seminars and internships. Staff are invited to participate and attend technology update training at local companies when appropriate. From staff CVs there is also evidence of staff engaging in pedagogical seminars and updating of their teaching skills. At the evaluation meeting with senior management the overall college strategy for staff development was presented and supported with documented evidence. This cascades down to department level for development of individual staff plans to meet personnel requirements and needs of the programme.

There is relatively low staff engagement in EU Programmes or events and Erasmus and low levels of teacher mobility to English speaking countries. At the meeting with senior management the College Head for Academic Mobility outlined that efforts to enhance staff mobility are ongoing and that there is evidence of greater participation of staff in EU projects in teaching and administrative staff categories; yet this is still low relative to before. The college needs to further review its strategy and some additional resource or incentive could be provided to motivate outward mobility with emphasis on working with sympathetic partners.

Given the high teaching and contact hours load on staff there is likely to be a difficulty for substantial engagement in fundamental research. Therefore, staff engagement in activities outside teachings tends to be in consultancy or expert evaluator roles. It is however commendable to note that there are some staff who are research active and preparing conference and journal papers and the college should consider how it might be able to divert more resources to support this activity and further encourage staff to take on their own self-directed study and learning in this regard. One staff member provided evidence of how he had used the process of completion of his PhD to embed applied research elements in his subject matter and teaching content and also in the development of programme projects and theses. The College Head of Research provided an overview of the difficulties the college faces in competing for national research funds at the evaluation meeting but also provided a synopsis of the attempts made by staff to attract alternative funding from local businesses. The college is making sincere efforts and perhaps could review how it could further enhance the activity in this area through an inward

staff scholarship/exchange or through small college bursaries or incentive actions for staff engagement in research.

2.4. Facilities and learning resources

The college has adequate classrooms of appropriate size at its disposal to support this programme. The typical class size is of the order of 30 to 40 students. At evaluation there was evidence that classrooms had capacity to accommodate between 30 and 70 students are and laboratories or workshops accommodate between 15 and 30 places in laboratory facilities. Additionally, there are distance learning facilities to support the programme when required by students. Overall student facilities in the college library are good and students have access to computers, printers and internet for research and report writing or self-study work. At the evaluation there was evidence of available self-study and group study rooms which are of good quality.

The self-evaluation report gives a very good overview of the status of the teaching materials at the disposal of the programme for supporting student learning. The library facility which was reviewed on the day of the evaluation is very attractive for students and there was evidence of an adequate stock of books. These are principally located in the main college library where there is also access to open databases and publications such as journals and text books. This is commendable and in line with what would expect from best practice for a third level college. The student usage of books is recorded and the resulting data is provided to programme committees to monitor student engagement in self-study activities.

For the transport technology elements of this programme which comprises around 20% of the subject specific module content there are excellent workshops and laboratories which were viewed on a tour of the facilities during evaluation. Overall in these laboratories there is a good range of appropriate equipment which is industry standard and available for use on this programme. The equipment is well maintained and there is evidence in the principal workshop of a range of electronic diagnostic mechanical testing and repair equipment from a number of manufacturers/suppliers. In general, there was also evidence of good IT classrooms and CAD rooms available for use on the programme with proper drafting machines for producing working plots.

Two laboratories were also presented in good condition to support module in transport logistics planning and cargo loading/freight transportation. However overall there is a need to enhance the following facilities and software to support the key transport logistics modules:

- Software for logistics planning, cargo routing and route planning / optimisation;

- Technology (wireless or GPS) for fleet or transport tracking, real or simulated;
- Barcoding and RFID tagging systems for management of packages warehousing planning and management systems for both use and simulation of scenarios by the students;
- Additional technology for the practice of cargo loading and simulation of placement of cargo and associated sway effects;
- Mobile apps and drone technology to simulate futuristic cargo delivery technologies and trends.

From our meeting with the social partners there is evidence that they do not expect the college to purchase or obtain all technology in use in the region and there was evidence that they would support the college in providing access to key additional technology not currently at its disposal. The college and programme committee should investigate these options as a matter of urgency.

All of the facilities presented were well maintained and very bright and were attractive to students in terms of places of study and learning. In workshops it was noted that although there was some evidence of signage with necessary health and safety procedures that there was little overt signage warding of hazards or dangers associated with industrial standard equipment. This needs to be addressed as a matter of priority as a critical factor in ensuring that all students take note and responsibility for safe working practices at all times and a mechanism should be utilised to advise and remind students frequently of taking relevant care.

2.5. Study process and students' performance assessment

The admission requirements for the programme are in line with the legislation defined by the Order of the Minister of Education and Science of the Republic of Lithuania "On Setting of Minimal Indicators of Learning Outcomes". The total number of 1st choice applicants is consistent showing demand for the programme among applicant students. However, the range of the competitive score of all entrants to the programme is quite large with diversified learning requirements which creates a challenge for teachers.

Overall evaluation of the programme and documentation shows that the entry level of students has remained fairly constant and satisfactory with a small increase in the base level. The average level is static over the period analysed. Application numbers appear to be increasing. At the meeting with staff and the senior management it was explained that this is largely due to the programme name change to reflect the programme ethos and graduate career destinations.

The programme duration and timing is ample to support and meet the learning outcomes of modules. The students have a wide variety of free subject choices available and can discuss choices with teachers in advance of choice using a variety of means including the use of social media which is very commendable.

The attrition rate has worsened over the last number of years in full time and in part time mode. There was over 45% wastage for the FT graduating class of 2014 and 40% for the PT graduating class in 2013. In general, in the first year of the programme there is a higher rate of attrition than in the combined subsequent years of the programme and the learning averages of the students is lower in year 1 compared to year 3. To address this issue the college provides additional tuition support to students at the start of Semester 1. This support is targeted based on screening tests conducted by staff with students. The performance of part time students is frequently less than those on full time mode due to other constraints like work commitments however the comparative learning averages are not showing drastically different levels of achievement overall. However, these issues need to be addressed. The programme committee should consider options in the first year of the programme to further reduce the examination load on students and ease the transition to third level education. The analysis of final year project scores indicates normalised performance among students which is appropriate.

There is a number of students participating in applied research activities and also scientific and engineering competitions. This creates a range of higher self-directed learning skills among graduates as well as enhancing their skills and knowledge in problem solving. The number of students who participate in mobility and Erasmus based activities is quite low. The programme committee will have to find ways to encourage an increase in this activity. However, it is worth noting that students who participated in the evaluation process had excellent English language skills which was very positive.

The college is supporting the welfare of its students on this programme by helping to administer government grants and supplementing this with college scholarships to students in need of additional support. This is very commendable and appears to be structured and varied so that there are a range of different grants and supports in place to meet varying requirements.

The assessment regime on the programme is rigorous. There is a clear use of both standard formalised examinations and practical assessment measures. Module descriptors indicate that staff plans the use of formative assessment and feedback through oral questioning, student defence of projects and report work. From the evaluation meetings there is good engagement between the faculty and the local employers in the assessment of students on work placements and on the final theses. This is highly commendable.

The way in which the programme is structured and monitored enables full student participation in normal college life. The timetable is not onerous and there is ample time and support for extra-curricular activities. This is very important to ensure that students have a good balance between study and relaxation as it helps students maintain reasonable stress levels. From a professional development perspective, the college plans student CV workshops and recruitment events with local companies. The college also maintains good contact with previous graduates to monitor the external market and the employment situation.

2.6. Programme management

This programme is managed by the Transport Engineering Department under the auspices of the Head of Department. The strategic development of the programme takes direction from the strategic plans of the College. The Faculty and the Department holds regular meetings to allow teacher input on the programme and to monitor student performance and deal with organisational matters. All of these plans were well prepared with clear tasks, responsible persons, deadlines and status of actions recorded providing good evidence of follow through on actions.

Additionally, there is a programme monitoring committee with students and employer representatives who contribute to the direction of the programme and assist in the decision making process. Some changes to the programme for instance have occurred at students' requests such as the provision of additional foreign language choices for students. The college makes all relevant documents for the regulation of the programme available publically and the management of the programme is in line with the requirements of the documented quality management process of the College.

There is evidence from the self-study report that revisions to the programme are undertaken in response to the need of staff, available resources and the programme of study and its assessment. This is commendable and actions to address the concerns that have been identified are appropriate and have had positive impact; this is very important especially in the context of ensuring the requirements of employers are implemented where possible. In addition, in line with standard review intervals the programme is evaluated and adapted as appropriate from time to time. At the evaluation meeting with teachers and students evidence was provided that the process of staff-student engagement is well managed in both formal and informal modes for dealing with aspects of programme delivery/content and regular feedback. The process of work placement is well documented. However, there was no evidence of formal training or information events for employers to advise them of the necessary supporting structures and

assessment requirements for placement. Perhaps this could be addressed annually to enhance this aspect of learning even further.

The college utilises a quality management system based on ISO9001:2008 and the principles of EFQM It appears that while the system is generally functioning well there are aspects of the process which have been inhibited by the lack of appropriate IT system to streamline quality monitoring and management. The college should consider how this needs to be addressed to make the system fully robust. At the evaluation meeting the College quality manual and action plans down to department and programme level were provided. Other evidence was provided during the meeting with the SER group and students of the formal involvement of students in quality process through end of semester questionnaires and programme meetings.

Overall the programme is well managed and it the quality management process is based on continuous improvement and is manifest in the quality department who are independent of academic units which is commendable. Key actions of the quality management process are underpinned by planning, analysis, discussion and problem solving in department and programme levels meetings and committees which is satisfactory.

2.7. Examples of excellence

From the evaluation process the following areas of the programme and its management provided good examples of excellence:

1. The overall strategic planning and management process with follow through on action planning to departmental/programme level is very well devised, specified and managed by the quality management system and staff.

2. The study process and the combination of informal and formal integration of supports for students is excellent. An example of this is the support system for students who have achieved lower competitive scores that the mean or maxima, of their student colleagues.

3. The process of staff engagement in personal development in technical and pedagogical areas is well planned and supported by management is there is evidence of full engagement in this process by staff and some staff gave evidence of how they have used their PhD research to the benefit of their teaching and students.

4. The participation of students and staff in site visits was highlighted as a key feature of the programme by alumni and this is an excellent mechanism for additional instructional and case study work which can be further exploited.

III. RECOMMENDATIONS

1. The programme committee should review the programme aim and learning outcomes and present these in a revised way so as to more clearly reflect the themes of the programme.

2. The programme should consider exciting new forward looking elements to their modules including:
    a. Drone delivery;
    b. Driverless vehicles;
    c. Mobile track and trace apps, Cloud computing, 'the internet of things' and technologies for business process management and KPI management across collaborating transport companies.

3. The programme committee should review how it can introduce some additional content on multi modal transport, quality management, problem formulation and problem solving.

4. It is extremely important for the college and programme committee to enhance its existing laboratory facilities for this programme; in particular, those that support student work in logistics/cargo/warehousing modules which require appropriate additional software and technology.

5. The college should devise and deliver a short course for training and informing all companies and their employees who are supervising students on placement.

6. There is a need to further enhance warning signage in the workshops especially where there is medium to high risk threats posed to student while using equipment or facilities.

7. The college needs to review how it can further target resources to dealing with the key drivers of student drop out and attrition.

8. The college needs to consider how it can plan and motivate additional staff and student mobility opportunities.

IV. SUMMARY

The programme is well developed and there is clear emphasis that the graduate attributes based on the programme learning outcome meet the needs of the social partners. Graduates achieve high employment levels which is creditable. The specification of the learning outcomes can be better clarified with more careful wording and alignment with key programme themes. The programme content is overall well balanced and matches the learning outcomes. There is well structured robust and well varied assessment methods in use to assess module outcomes. In particular, the use of 100% assessment of some modules is commendable. There are some emerging technologies that would enhance the programme if introduced in imaginative ways. This could make the content more attractive and make the programme more attractive to prospective students. Much of this technology is enabled by the use of internet wireless networks and vehicle / cargo tracking which will also help develop the student's perspective on the application of enabling technology outside of the traditional logistics business sector.

The staff are highly committed and have high levels of qualifications and commitment to CPD. This is underpinned by the college commitment to strategic planning and staff development. There is a need to further motivate staff and student involvement in Erasmus and international study and teaching activities. Some of the facilities are of a high standard but there is a lack of some facilities for the modules associated directly with logistics, cargo handling, warehousing, package tracking and software and technology for routing and tagging/tracking. This needs to be addressed as soon as possible. There is a need for some additional review of the issues affecting retention to ensure that the resources allocated to support weaker students are well targeted to optimise the results. The attrition rate is very high and given the increase in application numbers there is an opportunity for the college and the programme committee to fine tune initiatives to deal with this problem with precise allocation of resources.

The overall strategic and routine management of the college and the programme by default is excellent and there is ongoing adjustment through continuous improvement which is also commendable. The staff-student engagement and engagement with local social partners is a key element in the success of the programme and should be recognised, fostered and supported as one of the outstanding features of the programme.

V. GENERAL ASSESSMENT

The study programme Transport Logistics Technologies (state code – 653E20001) at Šiauliai State College 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	3
2.	Curriculum design	3
3.	Teaching staff	4
4.	Facilities and learning resources	2
5.	Study process and students' performance assessment	3
6.	Programme management	4
	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: Clive Neal Sturgess

Grupės nariai:
Team members: Marianna Jacyna

Juri Lavrentjev

Gintaras Vilda

Ger Reilly

Monika Simaškaitė

Studijų kokybės vertinimo centras

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VI. APIBENDRINAMASIS ĮVERTINIMAS

Šiaulių valstybinės kolegijos studijų programa *Transporto logistikos technologijos* (valstybinis kodas – 653E20001) vertinama **teigiamai**.

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

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IV. SANTRAUKA

Programa parengta gerai; aiškiai pabrėžiama, kad absolventų parengimas, grindžiamas programos studijų rezultatais, atitinka socialinių partnerių poreikius. Absolventų įsidarbinimo lygis aukštas, tai pagirtina. Studijų rezultatų formuluotės gali būti tinkamesnės, aiškesnės ir atitikti pagrindines studijų programos temas. Programos turinys subalansuotas gerai ir atitinka numatytus studijų rezultatus. Dalykų rezultatams įvertinti taikomi vertinimo metodai gerai struktūrizuoti, veiksmingi ir pakankamai įvairūs. Ypatingai vertinamas kai kurių modulių / dalykų 100 proc. įvertinimas. Yra keletas naujų technologijų, kurios sustiprintų programą, jei į ją būtų vaizdingai įtrauktos. Turinys būtų įdomesnis, o pati studijų programa taptų patrauklesnė potencialiems studentams. Daugumą šių technologijų galima naudoti belaidžio interneto tinklais, taip pat taikyti transporto priemonių ir (arba) krovinių sekimą, kas padėtų plėtoti studentų požiūrį į daug galimybių suteikiančias technologijas, prieinamas už tradicinės logistikos verslo sektoriaus ribų.

Dėstytojai yra labai atsakingi, turi aukšto lygio kvalifikaciją ir ją nuolat kelia. Tai paremta kolegijos įsipareigojimu dėl strateginio planavimo ir personalo profesinio tobulėjimo. Būtina toliau motyvuoti dėstytojus ir studentus dalyvauti *Erasmus* programoje, tarptautinių studijų ir dėstymo veikloje. Kai kurie materialieji ištekliai atitinka aukštus standartus, tačiau trūksta materialiųjų išteklių kai kuriems dalykams, tiesiogiai susijusiems su logistika, krovinių valdymu, sandėliavimu, siuntų sekimu, programine įranga ir maršruto sudarymo, žymėjimo ir (arba) sekimo technologijomis. Šiuos klausimus reikia kuo greičiau spręsti. Papildomai reikia peržiūrėti klausimus, kurie turi įtakos studentų issaugojimui mokymo įstaigoje, siekiant užtikrinti, kad silpnesniems studentams remti skiriami ištekliai būtų naudojami tinkamai, taip gerinant studijų rezultatus. Studentų skaičius sparčiai mažėja, bet atsižvelgdami į padidėjusį

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pareiškėjų skaičių, kolegija ir Studijų programos komitetas turi galimybę derinti iniciatyvas šiai problemai spręsti tiksliai skirdami išteklius.

Vertinama, kad bendra kolegijos ir studijų programos strateginė ir kasdienė vadyba yra puiki, nuolat koreguojama ir tobulinama. Dėstytojų ir studentų santykiai, taip pat jų bendradarbiavimas su vietos socialiniais partneriais yra pagrindinis programos sėkmės garantas, kurį reikia pripažinti, skatinti ir palaikyti kaip vieną iš reikšmingų studijų programos ypatybių.

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III. REKOMENDACIJOS

1. Studijų programos komitetas turi apsvarstyti studijų programos tikslą ir studijų rezultatus, juos aiškiau parengti, kad atspindėtų programos temas.

2. Į studijų programos modulius / dalykus įtraukti naujas įdomias perspektyvias temas, įskaitant:

    a. nuotoliniu būdu valdomų bepiločių orlaivių (dronų) tiekimas;

    b. bepilotės transporto priemonės;

    c. mobiliosios sekimo programėlės, debesijos kompiuterija, daiktų internetas, technologijos verslo procesų valdymui ir KPI valdymas tarp bendradarbiaujančių transporto įmonių.

3. Studijų programos komitetas turėtų apsvarstyti, kaip įtraukti papildomas temas: daugiamodalinis transportas, kokybės valdymas, problemų formulavimas ir problemų sprendimas.

4. Ypač svarbu, kad kolegija ir studijų programos komitetas gerintų esamus laboratorinius materialiuosius išteklius šioje programoje, ypač tuos, kurie reikalingi studento darbui logistikos, krovinių, sandėliavimo dalykuose, reikalaujančiuose tinkamos papildomos programinės įrangos ir technologijų.

5. Kolegija turi parengti ir suorganizuoti trumpą mokymo ir informacinį kursą visoms įmonėms ir jų darbuotojams, kurie yra studentų praktikos vadovai.

6. Reikia tobulinti įspėjamuosius ženklus darbo seminaruose, ypač ten, kur studentams kyla vidutinės ir didelės rizikos pavojus naudojant įrangą ar įrenginius.

7. Kolegija turi apsvarstyti, kaip skirstyti išteklius sprendžiant svarbiausius studentų iškritimo ir jų skaičiaus mažėjimo klausimus.

8. Kolegija turi apsvarstyti, kaip numatyti papildomas personalo ir studentų judumo galimybes ir juos motyvuoti.

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