



STUDIJŲ KOKYBĖS VERTINIMO CENTRAS

Aleksandro Stulginskio universiteto
STUDIJŲ PROGRAMOS
TRANSPORTO MAŠINŲ INŽIENRIJA (621E20004)
VERTINIMO IŠVADOS

EVALUATION REPORT
OF AUTOMOTIVE ENGINEERING (621E20004)
STUDY PROGRAMME
at Aleksandras Stulginskis university

1. **Prof. Dr. Clive Neal-Sturgess (team leader)** *academic,*
2. **Prof. Dr. Jochim Haldor,** *academic,*
3. **Prof. Bojan Dolšak** *academic,*
4. **Mr. Ger Reilly,** *academic,*
5. **Mr. Audrius Jasėnas,** *representative of social partners'*
6. **Monika Simaškaitė,** *students' representative.*

Evaluation coordinator - Mr. Pranas Stankus

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DUOMENYS APIE ĮVERTINTĄ PROGRAMĄ

Studijų programos pavadinimas	Transporto mašinų inžinerija
Valstybinis kodas	621E20004
Studijų sritis	Technologijos mokslai
Studijų kryptis	Sausumos transporto inžinerija
Studijų programos rūšis	universitetinės studijos
Studijų pakopa	Antra
Studijų forma (trukmė metais)	Nuolatinė (2), Iššęstinė (3)
Studijų programos apimtis kreditais	120
Suteikiamas laipsnis ir (ar) profesinė kvalifikacija	Sausumos transporto inžinerijos magistras
Studijų programos įregistravimo data	2013-05-31

INFORMATION ON EVALUATED STUDY PROGRAMME

Title of the study programme	Automotive engineering
State code	621E20004
Study area	Technological studies
Study field	Transport engineering
Type of the study programme	University studies
Study cycle	Second
Study mode (length in years)	Full time (2) Part time (3)
Volume of the study programme in credits	120
Degree and (or) professional qualifications awarded	Master in Overland Transport Engineering
Date of registration of the study programme	May 31, 2013

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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	Faculty Strategy plan 2015-2020
2	Labour market research questionnaires
3	Student questionnaires
4	Marketing plan 2015-2016
5	HEI methodology for recognition for prior learning
6	List of teachers participated in Erasmus mobility

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

The study programme Automotive Engineering is provided by Aleksandras Stulginskis University (hereinafter ASU or University). ASU is a state institution of higher education and research, which has long traditions. Its predecessor, Agricultural Academy of Lithuania, was established in 1924 in Dotnuva. In 1946 Agricultural Academy was moved to Kaunas, and in 1964 to Kaunas suburbs to a specially built campus. After the restoration of Lithuania's Independence, the management of Agricultural Academy of Lithuania was democratized: a modern three-cycle system of education was established, as well as programmes complying with market needs were offered. The institution was granted the status of a university in 1996 and it was renamed into Lithuanian University of Agriculture. Another change occurred in 2011, when the University received the name of Aleksandras Stulginskis University.

The University implements study programmes of all cycles in the fields of biomedicine, technology and social sciences and awards degrees at PhD, MSc and BSc, pedagogical and research titles of Professor and Associate Professor, and contributes to the dissemination of scientific knowledge, strengthening of knowledge-based economy and sustainable development of regional and country development.

Aleksandras Stulginskis University has dealt in the field of transport engineering since 1947, when the Department of Tractors and Automobiles was established. Scientific research has been intensified alongside the development of technical competency. A considerable amount of work has been done in the fields of the improvement of the indicators of internal combustion engines, studies of the processes of fuel injection in diesel engines, and others. As far as in 1956- 1958 the researchers of the Department participated in the creation and development of the stationary diesel engine in Kaunas Motor Plants. In 1969 the first course book Tractors and Automobiles was published for students in higher education by the teachers of the Department in Lithuanian. Recently, a lot of research has been done in the fields of biofuels and other alternative fuels.

The Faculty provided training only to specialists of agricultural mechanisation for a long time that acquired the qualification of an engineer-mechanic; a considerable number of them were employed in transport companies. Hence, the study programme Agricultural Machinery Engineering provided opportunities for the students to specialise in the field of transport engineering. Aleksandras Stulginskis University was granted a right to implement Doctoral studies in cooperation with VGTU (the coordinating university) and KU in the field of Transport Engineering. In 2012, the first-cycle study programme was registered and received accreditation for 3 years. The first admission to the afore-said study programme was organized in the summer of 2012. In 2013, the second-cycle study programme Automotive Engineering was registered and received accreditation for three years. The first admission to the afore-said study programme was organized in the summer of 2014.

1.4. The Review Team

The review team was completed according *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 24/11/2015.

- 1. Prof. Dr. Clive Neal-Sturgess (team leader)** Emeritus Professor of Mechanical Engineering, University of Birmingham (UK),
- 2. Prof. Dr. Jochim Haldor** Professor of Railway and Transport Planning, Aachen University of Applied Sciences (Germany)
- 3. Mr. Ger Reilly**, Head of School, Mechanical & Design Engineering, Dublin Institute of Technology (Ireland),
- 4. Prof. Bojan Dolšak, academic**, Dean of the Faculty for Mechanical Engineering, University of Maribor (Slovenia);
- 5. Mr. Audrius Jasėnas**, *Director of public establishment "Intechcentras" (Lithuania)*,
- 6. Ms. Monika Simaškaitė**, Student at Kaunas Technical university (Lithuania)

II. PROGRAMME ANALYSIS

2.1. Aims and Learning Outcomes of the Study Programme

In the SER it is stated that the purpose and Aims of the Master's qualification of land transport engineering is essential in conducting research or taking management positions in companies dealing in transport, production and sales of vehicles and technological equipment, exploitation and repairs, technical maintenance and expertise of vehicles, logistics, road building and maintenance, insurance, public administration and education. These are very wide aims, and possibly lead to a lack of focus in the programme.

The ASU programme is within the National Programme on the Development of Transport and Communications for 2014-2022 (approved by Resolution No. 1253 of the Government of the Republic of Lithuania dated 18 December 2013). It is accepted that attainment of this goal demands highly qualified specialists, able to model and analyse systems of transport and machinery using advanced methods and latest information technologies, but where this degree programme fits it is not clear. It was explained during the visit that the programme has three strands, progress to Doctoral studies, Masters graduates, and a combination of both strands. Again it was explained that the University emphasis is on skills at Masters level, however this is not evident in the documentation. Although the presentation of the aims of the programme are consistent with University policy, they could be better focussed and clarified for potential applicants.

It is claimed that the demand for specialists of road transport engineering is manifested by the fact that in 2013 the field of these studies was attributed to the group of engineering fields that acquire a larger number of state-financed places for studies (On Preliminary Number of Study Places to State-Financed First Cycle and Integrated Studies for 2013, Order No. V-107 of

the Minister of Education and Science of the Republic of Lithuania dated 12 February 2013). Although similar study programmes in the field of road transport engineering are implemented in Vilnius Gediminas Technical University and Kaunas University of Technology in Lithuania.

It is claimed that the current study programme Automotive Engineering is distinguished by the fact that it is related to agricultural transport, and it is the only study programme where the technologies of dismantling and utilisation of machinery are studied. Although there is a module on vehicle dismantling, it was not evident on the visit that any dismantling of equipment takes place, and it is questionable as to whether this activity is actually Level 7. The programme is named as “Automotive Engineering” with no reference to agriculture, and so it is not particularly clear from the documentation that the name of the programme, its learning outcomes, content and the qualifications offered are compatible with each other.

Aleksandras Stulginskis University has been implementing Doctoral studies in cooperation with VGTU (the coordinating university) and KU in the field of Transport Engineering since 2011 (Order No. V1019) The aim of the second cycle study programme Automotive engineering is to deepen the knowledge acquired in the first cycle of studies essential for the application of engineering or research activity and high technologies in the field of transport engineering, to develop thinking and special abilities essential to conduct scientific research and implement novelties in the professional activity, to self-dependently create and develop technologies, machinery and facilities of transport engineering. The learning outcomes of the second cycle are linked to the learning outcomes of the first cycle of the study programme Transport Engineering, so that on the completion of the studies graduates will demonstrate deeper knowledge and abilities in the field of studies than in the first (Bachelor) cycle, and will be able to continue their studies to Doctoral level. However, due to the manner in which the second cycle programme was introduced no assessment of the industrial need for this programme was carried out; this needs to be done. Therefore, although the programme aims and learning outcomes satisfy the basic criteria, they are not necessarily based on the academic and/or professional requirements, public needs and the needs of the labour market; a survey needs to be conducted.

It is stated in the Self evaluation report (SER) that the intended learning outcomes of the study programme Automotive Engineering (Table 3) clearly and consistently define a graduate’s knowledge, understanding and abilities upon the completion of studies, as well as define his/her readiness for professional and research career or studies in the third cycle. The learning outcomes of the study programme are attained through study subjects. Not fewer than 3 and not more than 5 abilities are developed by one study subject, which is good practice.

The links between the learning outcomes of the study programme, learning outcomes of the study subjects, teaching methods and methods of the assessment of students’ achievements are provided in the descriptions of study subjects (Annex 3.1). It is claimed that the learning outcomes of the study programme are based on the provisions of Dublin Descriptors; the level of their complexity conforms to Level 7 of National and European Qualifications Framework. However, there is no explicit mapping presented, so it is not possible to verify this statement. An explicit mapping of the Learning outcomes on to the Dublin Descriptors and the European Qualifications needs to be done. Therefore, again, although satisfying the basic criteria, it is not clear that the programme aims and learning outcomes are consistent with the type and level of studies and the level of qualifications offered; this needs clarifying by an explicit mapping.

2.2. Curriculum design

The volume of the second-cycle study programme Automotive Engineering is 120 ECTS Credits, i.e. 3200 hours. The duration of studies is 2 years or 4 semesters. Each semester consists of 30 ECTS credits, and not more than 5 study subjects are studied per semester. The duration of part-time studies is 3 years or 6 semesters; 1-4 study subjects of 15-24 credits are delivered per semester. The curriculum of full-time and part-time studies is provided in Table 4

in the self evaluation report.

The volume and structure of the study programme comply with the Description of General Requirements for Masters Study Programmes (Order No. V-826). The aim of the group of study subjects of the first semester is to prepare for scientific research and develop methodological and analytical abilities. The purpose of the study subjects delivered in further semesters is to provide students with the theoretical knowledge of the field of transport machinery engineering and technological systems of transport, to familiarise with the latest research in the afore-said fields, as well as to develop a deeper understanding of the related processes and abilities of modelling, assessment and prediction. Students are consistently trained for the scientific research within a selected theme. Therefore, the curriculum design meets the legal requirements; and study subjects are spread evenly, their themes are not repetitive.

The curriculum for the second cycle degree was explicitly itemised in the SER as Table 4, and were categorised as subjects demanding a high level of problem based approach, and compulsory subjects. The study programme has been implemented since 2014. In 2014 and 2015, only admission to full-time studies in the programme Automotive Engineering was permitted. The extended curriculum of full-time studies is provided in Annex 3.4. The study plan and module choice is consistent with the type and level of the studies, and generally the content and methods of the subjects/modules are appropriate for the achievement of the intended learning outcomes. One apparent anomaly is that the crash reconstruction module is for cars, whereas there are a large number of safety issues with agricultural machinery which need to be covered. Also there is no module on advanced diagnostics, which is again relevant to agricultural machinery, in the definition used here. The scope of the programme is sufficient to ensure learning outcomes, and the content of the programme appears to reflect the latest achievements in the relevant science and technologies.

2.3. Teaching staff

The academic staff employed in the study programme Automotive Engineering is presented in Annex 3.4, whereas the CVs of coordinating teachers of the study subjects are provided in Annex 3.5. There are 14 teachers involved in delivering the programme all of them having scientific degree, 13 teachers holding professors title. The workload is differentiated in accordance with the position (Regulation of Workload and Time Structure of ASU Teaching and Academic Staff, approved by the Senate of ASU on 26 June 2013) and is shown in Table 5. The study programme is provided by staff meeting legal requirements;

The SER emphasizes that to attain the goals and objectives of the second-cycle study programme Automotive Engineering, it is necessary to maintain a high proportion of highly qualified researchers in the study programme. The structure of the qualifications of teachers working in the study programme exceeds minimal requirements. Hence the qualifications of the teaching staff are adequate to ensure learning outcomes of the programme.

Due to the reduction of the number of students, the number of teachers has diminished in the Faculty since 2012. During the period analysed of three years, the number of students for one teacher working on regular basis at faculty surpassed the norm by 30%. The unfavourable results of the average ratio of teachers and students are offset by delivering lectures of the study subjects of general education to groups of students of several study programmes. Therefore, overall the number of the teaching staff, and staff turnover, is adequate to ensure the learning outcomes of the programme.

The teachers of the study programme are all active researchers publishing scientific articles and delivering presentations in conferences, and the thematic areas of their research comply with the content of the study subjects they teach, details are provided in the SER.

Qualification improvement is planned annually and presented in the “Individual Assignments for Teachers“. The teachers are provided with good conditions for qualification

improvement. This was also stressed during on site visit. Almost all teachers of the study programme improved their abilities in the spheres of the taught study subjects or research interests within the assessment period. However, it is stated in the SER that their trips are partially inhibited by insufficient readiness to communicate in a foreign language and limited financial resources which should be taken into consideration for future developments. Therefore, as was apparent both from the documentation and the visit, the higher education institution creates conditions for the professional development of the teaching staff necessary for the provision of the programme

The teachers' ability to implement the studies in the field of Transport Engineering is confirmed by the Order No. V-1019 granting the Right to Implement Doctoral Studies of the Minister of Education and Science that grants a right for ASU, VGTU (the coordinating university) and KU to implement doctoral studies in the field of Transport Engineering. The research conducted during the doctoral studies in the field of Transport Engineering also provides the ability to deliver the appropriate level of Masters studies aided by the results of the scientific research, and the teaching staff of the programme is involved in research directly related to the study programme being reviewed.

2.4. Facilities and learning resources

The students of the study programme may use the ASU library which stores over 150 thousand copies of publications, 22 % of which is learning materials. The University library contains over 520 000 copies of books, periodical publications, journals, newspapers, normative documents (standards, hygiene norms, building norms, etc.), dissertations, auto reports, reports of scientific research, computer readable, etc. The library also subscribes to 220-260 titles of journal publications every year. The readers of the library have access to eLAB a data base of Lithuania, which contains full-text documents and various foreign resources. The library has two reading rooms with 237 available workplaces, 30 out of them are computerized with wireless internet access. The readers of the library have free access to the internet. The teaching materials (textbooks, books, periodical publications, databases) are adequate and accessible.

An extensive number of databases are available on ASU computer network which are all listed in the SER. There is a large collection of course books and methodological aids in Lithuanian and foreign languages collected for the studies in the study programme Automotive Engineering. Due to the implementation of the project Study Programme Development and Teacher Competences for First and Second Study Cycles in Agriculture (ŽŪ-SPDK, No. VP1-2.2-ŠMM-09-V-01-002), the University library was supplemented by publications of 43 titles related to the subjects of the study programme Teachers and students can download electronic books from VGTU library. Most of the classrooms and laboratories are equipped with specialized video facilities and equipment, internet access, computerized workplaces for teachers, stands, models, and other visual aids. The total number of workplaces for students is 866 in all the teaching premises of the Faculty. The ratio is 1.2 workplaces per one first and second-cycle full-time student on average (In 2014 there were 576 students in the first cycle, and 158 students in the second cycle). Due to the decrease in the number of students, the ratio of premises and workplaces is improving. The premises for studies are adequate both in their size and quality.

University sponsors contribute to the development of the facilities. They have sponsored the renewal of the Laboratory of Tractors and Automobiles, Laboratory of Internal Combustion Engines, and Laboratory of Vehicle Service that are equipped with the latest experimental equipment. The Laboratories of Experiments with Tractors and Automobiles, Vehicle Repairs and Mechatronics have been renovated as well as new laboratory equipment has been purchased using the funds of the Faculty and sponsors. These areas of the facilities were generally excellent, however advanced state of the art laboratory facilities necessary to support Masters study were not evident on the visit. The panel was also informed during the visit that

adjacent to the campus are an agricultural research station, and a working farm. However, from the SER it does not appear that the students from this programme access these facilities, which appears to be a lack in utilising learning resources.

2.5. Study process and students' performance assessment

As stated in the SER the Masters degree studies are for deepening theoretical character of students' knowledge acquired in the first cycle of studies. The admission to the second cycle study programme Automotive Engineering is published on the ASU website, and is documented in the SER. Applicants who have a Professional Bachelor's qualification degree have to have accomplished supplementary studies.

Admission of students to the study programme Automotive Engineering has been taking place for two years. 20 matriculating students have been admitted to the study programme. All the state financed places were taken, and in 2015 two students were admitted to state non-financed places. The number of state financed places differs every year, as it is determined by the Ministry of Education and Science of Lithuania; second-cycle studies that are not financed by the state are not popular due to a high price of studies and students' ability to combine studies with their jobs.

The competitive score of the matriculates to the second-cycle study programme Automotive Engineering has improved over the period analysed: the highest competitive score to state-financed places was 9.9 points in 2015 (the average being 7.34 points), whereas the score to state non-financed places was 7.27 points. During the assessed period, the highest score to state-financed places increased by 2.2 points and achieved its maximum. This shows students' motivation and willingness to study. In 2014, 12 students were admitted to complementary studies in the study programme Automotive Engineering, 9 out of whom entered Master degree studies. Therefore, although no students have yet graduated, the admission requirements are considered to be well-founded.

The academic year consists of 2 semesters: autumn and spring. About 30% of the volume of study subjects is allotted to classroom hours, which is divided into contact hours, comprising 41% (lectures – 66%, laboratory work – 16%, practical classes – 18%) and self-dependent work, comprising 59%. The forms of independent work include preparation for seminars, reports, course papers, scientific research and revision for examinations. Following ASU Rector's Order No. 92-PA of 31 March 2015, the volume of contact work has been changed since the academic year 2015-2016. 7 academic hours per credit are allotted to study subjects of second cycle study programmes in full-time studies, and 5 academic hours per credit of contact work are allotted to study subjects in part-time studies. Research and innovation practice are allotted 0.5 academic hours per credit. The remaining time is allotted to self-dependent work. Advanced, disabled and working students have an opportunity to study according to individually designed schedule. They should submit an application to the Dean. However, there were no students that studied according to individual schedules in the assessed period.

Only the progress of the first year students is taken into account when analysing the progress of students of the study programme in Automotive Engineering. Out of 8 matriculates of 2014 into the study programme, 4 terminated their studies. The average score of students' progress was 8.2. The main reasons of terminating the studies leave include: employment and lack of possibilities to combine professional activity and studies, family conditions, worsened financial situation or emigration. To improve students' progress and reduce the number of students terminating their studies, the University has established a system of monitoring students' progress: a system of students' interim accounts is organized in the middle of a semester and assessed using a 0-1-2 point system. The summary of interim results is discussed in the meeting of the Dean's Office and individual discussions with the students having lower

assessments. From both the documentation and the panels visit it is apparent that the organisation of the study process ensures an adequate provision of the programme and the achievement of the learning outcomes.

The International Department assists students in the integration into the process of international studies. ASU has bilateral ERASMUS exchange agreements with 82 European universities, however, students' involvement in international exchange programmes is relatively small. 15 first cycle and 8 second cycle student have gone on Erasmus exchange trips since 2011 in faculty. Six students of the Faculty of Agricultural Engineering have gone on exchange trips this year. A relatively low involvement of students in exchange programmes is partly determined by insufficient foreign language skills and employment. One student from Italy, one student from Turkey and five students from Kazakhstan studied at the Faculty in the assessed period. In 2014 a student from Nigeria successfully completed his Master degree studies in faculty and is currently continuing his Doctoral Studies. Therefore, students have opportunities to participate in student mobility programmes, although the take-up rate is quite low. The university should encourage more international exchanges.

According to the Regulation on Master Studies in ASU, students have to present the results of scientific research every semester, participate in scientific conferences, and have at least one publication on Master's Thesis before its defence. Students have a possibility to develop their professional skills not only in business companies, but also the integrated Science, Studies and Business Centre (Valley) "Nemunas" and research laboratories of the Faculty. The most advanced students of senior years and Master students are involved in the scientific-experimental activity; some of them are employed to carry out projects of scientific research. Working in research laboratories, they acquire experience of using laboratory equipment, master methods of research and data analysis, as well as develop motivation to choose a researcher's career. Hence in accordance with the criteria, students are encouraged to participate in research, artistic and applied research activities.

During their studies, students have possibility to engage in artistic and intellectual self-expression. The students compete and represent their faculties in the University Sport Games; various tournaments are arranged for different sport fields. The university sportsmen have won a number of medals in national championships and international tournaments.

In 2005 a Careers Centre was established at the University, its mission is to help ASU students train for careers. The Centre gives individual and group consultations regarding professional career possibilities, organizes practical teachings about self-cognition and self-confidence, arranges meetings with prospective employers, helps to prepare for job interviews as well as mediates between employers and students in terms of job hunting and career issues. A system of social support was established for: incentive grants for learning results, one-time grants granted from the University and Faculty grant funds, social grants (granted by the Fund of State Studies), memorial grants or the ones awarded by ASU sponsors as well as allowances for orphans or disabled students.

The University fund of one-time incentive scholarships awards one-time scholarships to students for exceptional achievements in the studies, scientific research, social activity, sport and artistic expression. First-cycle students, who meet the criteria established by the Government of the Republic of Lithuania, are granted social scholarships. The University gives support to orphans and disabled students, as well as provides a possibility of payment for the studies in parts. All students have a right to be accommodated in student hostels of the University, orphans are exempt from fees. Students have a broadband internet access in the hostels. Therefore, the higher education institution ensures an adequate level of academic and social support.

Assessment of student performance is conducted within a ten-point system (regulated by the Order No. ISAK). Students' knowledge and abilities are regularly tested every semester completing and defending laboratory work, course papers and other assignments. The final assessment for study outcomes comprises the average for interim assessment, assessments for

self-dependent and examination assessment. The system of cumulative assessment motivates the students to study not only during the examination sessions, but throughout the whole semester. Examination assessment is allotted 50-80%, whereas assessment for self-dependent work – 20-50% of final mark. The coefficients are indicated in every study subject description. The same system of assessment is applicable to both full-time and part-time studies.

The examinations are taken in either oral or written form (as it is outlined in the description of the study subject) during the examination session in accordance with the designed timetable. The data are collected and stored in electronic and paper versions that are submitted to the Dean's office. Students that have failed or missed the examination are entitled to retake the examination twice in the running year. If a student fails to retake the examination two times, s/he has to repeat the course or terminate his/her studies.

Collegial assessment is applied for the assessment of Master's theses. The Assessment Board is composed following the Rector's order. The Board makes a decision on the final assessment of the quality of the thesis and student's knowledge. Students who fail to defend their work are allowed to repeat the defence procedure after one year. Therefore, although no students have yet completed the whole programme, the assessment system for students' performance is judged to be clear, adequate and publicly available and, so far, the student comments are favourable. It was not possible to assess whether or not students satisfied the requirement that the professional activities of the majority of graduates meets the programme providers' expectations as there are, as yet, no graduates from this programme.

2.6. Programme management

The study programme Automotive Engineering is carried out in the Faculty of Agricultural Engineering. The decision-making institutions of the Faculty include the meeting of the Academic Community of the Faculty and Faculty Council, the executive bodies include the Dean of the Faculty and Faculty administration. The Faculty administration is responsible for the organization of studies and administration of students' work and achievements. Students take part in the management of the study process. They are represented by the University Students' Council and the Faculty's Students Council. Student representatives are members of the Faculty Council, the Dean's Office, Study Programme Committee, Teacher Attestation Committee and other committees. The meetings are arranged upon the initiative of the Faculty administration of students, where the organization of the study process, quality of studies and other issues are discussed. The coordination of the study programme and its quality is implemented by the Study Programme Committee, approved by the Faculty Council (hereinafter the Committee). It receives assistance from the Centre of Innovations and Study Quality and Career Centre. The responsibilities for decisions and monitoring of the implementation of the programme are clearly allocated.

The process of administration and internal quality assurance is outlined in the University Statute and Description of Internal Quality Assurance at ASU, which defines the constituent parts of the system of internal quality assurance, their functions, operations and measures. Assessment and improvement of the study programme and its study subjects is continuously monitored by the whole academic community. Meetings are organized with the target groups of teachers and students upon request, as well as the experience of other universities implementing similar study programmes is employed.

Systematic assessment and self-assessment are conducted in accordance with the methodology developed by Centre for Quality Assessment in Higher Education (SKVC) or analogous agencies before the external assessment and accreditation of the study programme.

The aim of internal quality assessment is the quality of the competences developed in the study programme; therefore, the feedback of students, graduates, employers on the formation

of graduates' abilities in the programme receives considerable attention. The Centre of Innovations and Study Quality carries out regular surveys: students' opinion surveys on the quality of teaching and study subjects are conducted annually, teachers' opinion surveys are conducted every two years. The descriptions of study subjects are approved for two years. Evidence of the processes was provided on the visit. Assessment of the study programme and demand for its improvement are also discussed with the employers during the events of Alumni club, meetings with business representatives as well as during the events of "Karjeros dienos" (Career Days) organized annually by the Career Centre. The Faculty has established close relationships with employers dealing in the sales of transport means, their maintenance, production and repairs, as well as transportation and logistics: visits to companies and meetings with the specialists are organized; as well as students' practical training is arranged. Hence the evaluation and improvement processes involve stakeholders.

Annual department and faculty reports, reports by the chairmen of final theses defence boards, lists of the themes of undergraduate and graduate theses, data of International Relations Office on student and teacher international mobility, etc. are also employed for the analysis and assessment of study programmes. If the study programme is subject to fundamental changes, these are discussed and confirmed by the University Senate. Students are represented in the Faculty Council, Teacher Attestation Commission, the Study Programme Committee as well as other committees and working groups. A system of sociological surveys implemented in the University involves prospective employers, teachers, students and graduates. The Centre of Innovations and Study Quality, Career Centre, the Faculty, Committee and Institutes are responsible for collecting and publishing the relevant information. Since the first cohort of graduates will complete their studies in 2016, no replies from employers about the graduates are available. Additionally, it needs to be further developed to establish a closed loop, from proper dissemination of acquired information among all stakeholders, to strategic planning, and finally to an action plan of how to make the improvements, which effectiveness and efficiency needs to be constantly monitored.

2.7. Examples of excellence *

The University has excellent relationships with a range of social partners which results in excellent equipment donations.

The university has good strategic planning processes in place, and provide good support for both staff and students.

III. RECOMMENDATIONS

1. The University should better map the requirements of the social partners for the programme.
2. The University should conduct an explicit mapping of the programme on to The Dublin Descriptors and the Framework levels.
3. The University should improve the focus for the study programme, and give more clarity to assist student choice.
4. The University should review the title of the degree programme making better focus on agricultural aspect of the programme.
5. The University should endeavour to give more emphasis on Transport Studies earlier in the programme, and increase the content of diagnostic, logistics and legal requirement modules.
6. The University should examine how they can better implement the quality assurance tools they already have.
7. The University should explore the possibilities of including the agricultural research station, and a working farm into the programmes to better utilise learning resources.
8. The University should encourage more international exchanges.

IV. SUMMARY

The University has good facilities in general and good relationships with a range of social partners which results in excellent equipment donations. In the SER there are a large number of aims of the Master's qualification which are very wide, and possibly lead to a lack of focus. The University could profitably consider reviewing the title and focus of the programme.

The structure of the qualifications of teachers working in the study programme exceeds minimal requirements. Hence the qualifications of the teaching staff are adequate to ensure learning outcomes of the programme. The study plan and module choice is consistent with the type and level of the studies, and generally the content and methods of the subjects/modules are appropriate for the achievement of the intended learning outcomes. However, the content of diagnostic, logistics and legal requirement modules should be reviewed.

The facilities were generally excellent, however advanced state of the art laboratory facilities necessary to support Masters study were not evident on the visit. However, from the SER it does not appear that the students from this programme access the adjacent farm and research station, which appears to be a lack in utilising learning resources. The teaching and learning equipment (laboratory and computer equipment, consumables) are adequate both in size and quality.

The organisation of the study process ensures an adequate provision of the programme and the achievement of the learning outcomes. Students have opportunities to participate in student mobility programmes, although the take-up rate is quite low. The university should encourage more international exchanges. The higher education institution ensures an adequate level of academic and social support.

The University has good strategic planning processes in place, and provide good support for both staff and students. However, needs further improvements by better implementation of the quality assurance tools at disposal in order to close the loops, and by better dissemination of the quality assurance processes among all stakeholders.

V. GENERAL ASSESSMENT

The study programme *Automotive Engineering* (state code – 621E20004) at Aleksandras Stulginskis university is given **positive** evaluation.

Study programme assessment in points by evaluation areas.

No.	Evaluation Area	Evaluation of an area in points*
1.	Programme aims and learning outcomes	2
2.	Curriculum design	3
3.	Teaching staff	3
4.	Facilities and learning resources	3
5.	Study process and students' performance assessment	3
6.	Programme management	3
	Total:	17

*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: Jochim Haldor

Team members:

Ger Reilly

Bojan Dolšak

Audrius Jasėnas

Monika Simaškaitė

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VI. APIBENDRINAMASIS ĮVERTINIMAS

Aleksandro Stulginskio universiteto studijų programa *Transporto mašinų inžinerija* (valstybinis kodas – 621E20004) vertinama **teigiamai**.

Eil. Nr.	Vertinimo sritis	Srities įvertinimas, balais*
1.	Programos tikslai ir numatomi studijų rezultatai	2
2.	Programos sandara	3
3.	Personalas	3
4.	Materialieji ištekliai	3
5.	Studijų eiga ir jos vertinimas	3
6.	Programos vadyba	3
	Iš viso:	17

* 1 - Nepatenkinamai (yra esminių trūkumų, kuriuos būtina pašalinti)

2 - Patenkinamai (tenkina minimalius reikalavimus, reikia tobulinti)

3 - Gerai (sistemiškai plėtojama sritis, turi savitų bruožų)

4 - Labai gerai (sritis yra išskirtinė)

<...>

IV. SANTRAUKA

Iš esmės Universitetas turi gerus materialiuosius išteklius ir palaiko gerus santykius su daugeliu socialinių partnerių, kurie dovanoja puikią įrangą. Savianalizės suvestinėje nurodyta daug magistrui keliamų tikslų, kurie yra labai platūs ir tikriausiai nėra tiksliai orientuoti. Universitetui būtų naudinga persvarstyti šios studijų programos pavadinimą ir tai, į ką ji orientuota.

Šios programos dėstytojų kompetencijų struktūra viršija būtinuosius reikalavimus. Todėl dėstytojų kvalifikacija yra pakankama, kad užtikrintų numatomus studijų rezultatus. Studijų plano ir modulių pasirinkimas atitinka studijų rūšį ir pakopą, ir apskritai dalykų ir (arba) modulių turinys bei metodai yra tinkami norint pasiekti numatomus studijų rezultatus. Tačiau diagnostikos, logistikos ir teisinių reikalavimų modulių turinį reikėtų persvarstyti.

Materialieji išteklių iš esmės puikūs, tačiau vertintojų grupė negali tvirtinti, kad laboratorinė įranga, reikalinga studijuojant magistrantūrą, yra moderni. Sprendžiant iš savianalizės suvestinės, šios programos studentai neturi galimybės pasinaudoti šalia esančio ūkio ar mokslinių tyrimų stoties įranga, taigi nepakankamai panaudojami mokymosi išteklių. Studijoms skirta įranga (laboratorinė, kompiuterinė, reikmenys) yra tinkama, ir jos yra pakankamai.

Studijų proceso organizavimas užtikrina tinkamą programos įgyvendinimą ir studijų rezultatų pasiekimą. Studentai turi galimybių dalyvauti studentų judumo programose, nors jomis mažai pasinaudojama. Universitetas turėtų labiau skatinti dalyvavimą tarptautinių mainų programoje. Ši aukštoji mokykla užtikrina tinkamą akademinės ir socialinės paramos lygį.

Universitetas yra įdiegęs geras strateginio planavimo procedūras ir tinkamai remia studentus bei dėstytojus. Tačiau reikia atlikti ir kitus patobulinimus gerinant esamų kokybės užtikrinimo priemonių įgyvendinimą *siekiant užbaigimo*, ir geriau viešinti socialiniams dalininkams kokybės užtikrinimo procedūras.

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III. REKOMENDACIJOS

1. Universitetas turėtų *geriau išdėstyti (struktūrizuoti)* socialinių partnerių reikalavimus programai.
2. Universitetas turėtų atlikti šios studijų programos atitikties Dublino aprašams ir Europos kvalifikacijų sąrangos lygiams detalizaciją.
3. Universitetas turėtų patikslinti, į ką orientuota ši studijų programa, ir suteikti daugiau aiškumo, kad studentams būtų lengviau pasirinkti.
4. Universitetas turėtų patikslinti šios studijų programos pavadinimą, akcentuodamas žemės ūkio aspektą.
5. Universitetas turėtų daugiau dėmesio skirti transporto studijoms ankstesniame šios programos įgyvenimo etape ir išplėsti diagnostikos, logistikos ir *teisinių reikalavimų* modulių turinį.
6. Universitetas turėtų ištirti, kaip geriau įgyvendinti esamas kokybės užtikrinimo priemones.
7. Universitetas turėtų ištirti galimybę įtraukti į programas žemės ūkio mokslinių tyrimų stotį ir veikiančią ūkį, kad geriau pasinaudotų studijų išteklių.
8. Universitetas turėtų labiau skatinti tarptautinius mainus.

<...>
