



STUDIJŲ KOKYBĖS VERTINIMO CENTRAS

**ALEKSANDRO STULGINSKIO UNIVERSITETO  
STUDIJŲ PROGRAMOS "ŽUVININKYSTĖS IR  
AKVAKULTŪROS TECHNOLOGIJOS"  
(valstybinis kodas - 6121IX011)  
VERTINIMO IŠVADOS**

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**EVALUATION REPORT  
OF "TECHNOLOGIES OF FISHERIES AND AQUACULTURE"  
(state code - 6121IX011)  
STUDY PROGRAMME  
at ALEKSANDRAS STULGINSKIS UNIVERSITY**

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Išvados parengtos anglų kalba  
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## DUOMENYS APIE ĮVERTINTĄ PROGRAMĄ

Studijų programos pavadinimas	<i>Žuvininkystės ir akvakultūros technologijos</i>
Valstybinis kodas	6121IX011
Studijų sritis	Biomedicinos mokslai
Studijų kryptis	Žemės ūkio mokslai
Studijų programos rūšis	Universitetinės
Studijų pakopa	Pirmoji
Studijų forma (trukmė metais)	Nuolatinė (3,5 m)
Studijų programos apimtis kreditais	210
Suteikiamas laipsnis ir (ar) profesinė kvalifikacija	Žemės ūkio mokslų bakalauras
Studijų programos įregistravimo data	2014-03-20

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## INFORMATION ON EVALUATED STUDY PROGRAMME

Title of the study programme	<i>Technologies of Fisheries and Aquaculture</i>
State code	6121IX011
Study area	Biomedical Sciences
Study field	Agricultural Sciences
Type of the study programme	University studies
Study cycle	First
Study mode (length in years)	Full time (3,5 years)
Volume of the study programme in credits	210
Degree and (or) professional qualifications awarded	Bachelor of Agricultural Sciences
Date of registration of the study programme	20 March, 2014

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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 bachelor degree in Technologies of Fisheries and Aquaculture is delivered by the Faculty of Water and Land Management. It is in the study field of Biomedical Sciences. The programme is a relatively new development for the University. It started in 2014. It has not yet completed one full cycle and the review team could not therefore form a complete picture of the totality of its operation.

### ***1.4. The Review Team***

The review team was completed according *Description of experts' recruitment*, approved by order No. V-41 of Acting Director of the Centre for Quality Assessment in Higher Education. The Review Visit to HEI was conducted by the team on 23/May/2017.

#### **Review team:**

- 1. Marion Coy (team leader)**, *President emeritus of Galway-Mayo Institute of Technology, Higher Education Consultant (Ireland);*
- 2. Dr. David Wright**, *Senior Lecturer in Agriculture at Bangor University (United Kingdom);*
- 3. Dr. Rein Lillak**, *Lecturer at Estonian University of Life Sciences, President of NGO Environment and Culture (Estonia);*
- 4. Mr Kęstutis Skrupskelis**, *Biologist at Institute of Ecology of Nature Research Centre (Lithuania);*
- 5. Ms Iveta Mykoliaitytė**, *student of Medicine Master programme at Lithuanian University of Health Sciences (Lithuania);*

**Evaluation Coordinator - Ms Gabriele Bajorinaite**

## **II. PROGRAMME ANALYSIS**

### ***2.1. Programme aims and learning outcomes***

The programme's aims and intended learning outcomes are clearly written and are publicly available on the University's website. The main aim of the programme is "to prepare highly skilled professionals of broad erudition, who have a thorough knowledge in creating sustainable and competitive aquaculture and fisheries". The programme aims emphasise the importance of graduates being able to "correctly apply the latest technologies concerned with the design, construction and maintenance of aquaculture and fisheries" and to be able to "respond flexibly to future demands and changes in both the technological and business environment". When

outlining the rationale for the aims of the programme, the academic staff who met the team showed a strong level of awareness of the wider context for the programme, including the changing global ecological environment and developments in European Union policy in aquaculture. The significance of aquaculture in Lithuanian Agricultural and Rural Development Policy 2014-2020 is articulated very clearly in the self-evaluation report and academic staff emphasised the importance attached to this during the development of the curriculum.

The programme aims and outcomes are set at an appropriate level for a bachelor degree. Students acquire knowledge and understanding and develop their capacity to conduct research. For example, graduates from the programme are expected to be able to “understand and assess the technological procedures of fisheries and aquaculture”, to “analyse and evaluate the environmental impact of fisheries and aquaculture” and to “carry out research and creatively apply the results”. Students also gain specialist skills associated with the discipline and more general social and personal skills. For example, they are expected to be able to “apply different design and construction techniques and methods for the development of aquaculture and fisheries”, to “think critically and logically” and to “work independently and in a team”.

The relationships between the aims of the programme, its learning outcomes and study subjects are clearly mapped out in the self-evaluation report. The knowledge, skills and competencies of the individual subjects show evidence of internal progression, becoming increasingly challenging as students progress from the first to the final year of the programme. For example, students pursue general subjects in year 1 including a foreign language for specific purposes, mathematics and informatics. An introduction to research skills is provided in the module, Biostatistics and Research Basics. Water Chemistry, Applied Physics and Hydrology are also introduced at an early stage. Special skills in relation to fish breeding, aquaculture and feeding technologies are then developed and the foundations are laid for modules of a more complex nature in areas such as environmental impact assessment and feeding technologies. Modules in the final years of the programme promote the development of independent learning and research skills. In their final semester students complete a ‘Complex Project of Fisheries and Aquaculture, a computer aided design project and an undergraduate thesis.

The technical and technological aspects of the programme are regarded as one of its strengths, distinguishing its graduates from applied biology and ecology specialists from other institutions, and meeting the specific needs of employers. The social partners confirmed that they had been consulted during programme development and had approved the proposed learning outcomes. However, they also suggested that more practical work might be required.

In the self-evaluation report the rationale for the programme is described as arising from national and labour-market needs. Aquaculture is seen as an important component of a sustainable

fisheries sector and has received substantial financial support from the European Union and the Lithuanian government. It is anticipated that students will find employment as managers, technologists, advisors or in research. The social partners confirmed the labour-market requirement but the review team was unable to reach any conclusions about the scale of this demand. The programme started in September 2014. Hence the review team was not able to meet any alumni and obtain their views about the adequacy of the knowledge, skills and competencies gained during the programme for employment or further study.

The programme fits with the University's aim to promote 'sustainable development of scientific knowledge and studies required for agricultural and rural progress, sustainable use of forest, water and other natural resources, improvement of the quality of life'. It is provided by the Faculty of Water and Land Management, which also provides bachelor programmes in hydraulic and other engineering disciplines.

The relationships between the title of the programme and curriculum content are discussed in the next section.

## **2.2. Curriculum design**

The structure of this programme conforms to national requirements and the European standards in relation to this level of qualification. It has been developed in accordance with the national "General Requirements for First Cycle and Integrated Study programmes". The programme comprises 210 ECTS in total. Of these 165 ECTS are in the main study field. General subjects in the first year develop students' competence in English and their critical and creative thinking skills. Students complete a training practice module (6 ECTS) in their second year, a professional practice period (9 ECTS) and an undergraduate thesis (12 ECTS) in their third year, as well as a substantial amount of laboratory and practical work that is integrated within individual modules. Students are also required to extend their knowledge into related fields by completing elective modules in accordance with university and national requirements. Having completed the programme, students acquire a qualifications at level 6 of the national qualification framework. The programme is only delivered on a full-time basis. The length of the study period is 3.5 years or seven semesters.

The curriculum develops in a systematic way. Study subjects in the first year cover mathematics, computer graphics and the physics, chemistry and biology of water. Students are also introduced to fisheries policy and law. Modules in the second, third and fourth year focus mainly on the design, construction and operation of freshwater aquaculture systems and, to a lesser extent, fisheries. Modules in years three and four cover more advanced subjects including wastewater treatment technology, environmental impact assessment and computer aided design of

aquaculture systems. The learning outcomes of individual modules become progressively more advanced as students progress through the programme. Many of the first year modules require students to demonstrate that they ‘know’, ‘describe’ or ‘understand’. Modules in subsequent years, particularly those in years three and four, increasingly require students to ‘describe and explain’, to ‘analyse and evaluate’ or to ‘know, select, plan and organise’.

Students experience a variety of teaching methods including lectures, laboratory and other practical work, research projects, computer aided design workshops and professional and practice placement activities. These are appropriate for the discipline and enable the intended learning outcomes to be achieved.

The scope of the curriculum is sufficient to achieve the programme learning outcomes. However, within the curriculum relatively few credits are allocated to the study of the biology of fish and the suitability and management of different fish species in aquaculture and fisheries systems. The main modules devoted to these aspects of aquaculture are the second year modules Ichthyology (6 credits) and Fish Breeding and Aquaculture (4 credits) and the third year module Fish Diseases and Sanitary (6 credits). Some of the students the review team met commented that they felt that there was insufficient emphasis on both fish and fisheries. Conversely some students felt that there was too much emphasis on hydrology, but this view was not held by all.

The review team recognised the emphasis on technology within the programme. However it recommends that the balance between the technological and biological subjects within the curriculum is benchmarked against that in similar programmes in other international institutions. The review team notes that the response from the Programme Study committee to this comment and the emphasis placed by the Chair of the committee on the technical and technological strengths of the programme. The review team was impressed by the technological stream and saw its strengths as arising from the academic expertise of those lecturing in these disciplines. The review panel saw evidence in student work of some deficits in student knowledge of the complexity of the biology of fisheries. In order for this to be redressed the biological aspects of the programme should be strengthened, for example by introducing a module that requires students to demonstrate a detailed and critical understanding of the integrated management of different fish species in aquaculture systems. This could operate in parallel to the ‘Complex Project of Fisheries and Aquaculture’ or include case studies based around some of the commercial operations seen by students during external visits. An improvement of this type would strengthen students achievement of programme learning outcomes, particularly to ‘master technologies concerned with breeding, growing and feeding fisheries and aquaculture, their functions and principles of adaptation’ and to ‘understand and assess the technological procedures of fisheries and aquaculture’.



The academic staff acknowledged that the recruitment of an additional fish biologist would be of great assistance. The review panel concurs with this view.

In addition, it recommends that the fit between the curriculum of the programme and its title be reviewed, taking into consideration its freshwater focus, its emphasis on aquaculture systems and the fact that it does not cover the aquaculture of molluscs, crustaceans, aquatic plants or algae. This process should involve full consultation with students, teaching staff and social partners and take national and European Union policies and current and future requirements into account. The review team was informed that the programme is being kept under review and that the possibility of changing its title to Aquaculture Technologies is being considered. The review team concluded that the alternative title, which is being considered by the programme study board more accurately reflects the current technological focus of the curriculum.

Students must research, write and defend a final thesis in order to gain their award. However, as the programme started in September 2014, at the time of this review no students were in their final year and the team had no theses to review.

Some duplication of subjects was noted in the written curriculum documentation, but it was clear that this is being addressed at teaching staff meetings at the beginning of each academic year. The students the review team met also noted that there was some duplication of material across the different years of the programme. For example, water quality is covered in the first year in the Language for Specific Purposes modules and Water Chemistry, in the second year in Sustainability of Aquatic Ecosystems, Systems of Water Supply and Preparation for Fisheries and Aquaculture, Fish Breeding and Aquaculture and in the third year in Fish Diseases and Sanitary and Pollutant Transport in Aquatic Environments. The review team notes and accepts the response from the Programme Study Committee that the apparent repetition may arise from the treatment of different aspects of the same topic. Perhaps this distinction was, understandably, not always apparent to the students. The written documentation needs to be amended on an annual basis in order to ensure it is up to date. The review team was informed that, in line with the policy of the University, the Study Programme Committee could alter up to 20% of the programme on an annual basis. The currency of the curriculum and some redressing of the current biological and technological imbalances should therefore be occurring on a regular basis. Upon completion of its first cycle, the programme should be reviewed in order to take into account the evaluations of academics, students and industry partners on the strengths and weaknesses of the programme. For example, students have already noted that the emphasis on pond breeding in the programme did not match current commercial practice, social partners have suggested that additional practical work is required and academic staff have identified some

duplication in module content. All parties showed a high level of commitment to continuous improvement of the programme.

### **2.3. *Teaching staff***

The number and academic qualifications of the staff teaching on the programme meet the legal requirements of the Government of Lithuania. In the period 2014-2016, the teaching staff delivering the programme comprised 35 lecturers including 6 professors, 15 associate professors, 1 lector with Ph.D and 13 lectors without Ph.D. Lecturers with a PhD deliver 64% of subjects in the study field. The programme has sufficient and well-qualified staff for teaching technology and hydrology subjects, but insufficient specialist staff for teaching fisheries. According to the cv's supplied as an annex to the self-evaluation report none of the University academic staff involved in delivering the programme has a research degree in fish biology or related subject. The teaching staff also informed the review team that assistance from other institutions was used for the development of the fisheries modules. Hence, additional specialist expertise and up-skilling of existing staff is required. The learning outcomes of the programme are currently being met by the academic staff but the lack of expertise in the biological subject areas makes the process of keeping the programme up-to-date with recent research developments difficult. Should the university wish to develop postgraduate studies in this field, it will require definitely require additional expertise. The review team noted that some academic staff had taken on responsibility for teaching new subject areas, for example Ichthyology. This required substantial work from them in order to develop new teaching materials. It was evident that those staff involved in preparing new modules approached their work in a very diligent manner. These staff also acknowledged that the University had made an extra time allocation for this work. There was evidence of a strong professional work ethic among the academic staff.

Almost all of the teaching staff are full-time staff of the University. External specialist staff are used to support teaching of the module Fish Diseases and Sanitary. During the three year period since the programme started in 2014, there has been no turnover of lecturers. This has the advantage that teaching staff has experience of delivering the programme over several years but in future years some new expertise might benefit the programme.

Student reaction to teaching styles varied. Some students were very unhappy and felt that little effort was made to motivate students. Others suggested teaching was of good quality and that motivation was a matter for the individual student. As this is the first cohort of students on this programme, an attempt should be made to obtain detailed comments on the effectiveness of teaching. This could be done in individual or group meetings. The students the review team met reported that a small number of teachers are over-reliant on reading from prepared notes or slides

during lectures. Some students commented that this approach did not promote effective learning for them but others appreciated the provision of notes in this manner. There were differences in the description of the level and effectiveness of Moodle reported by staff and students. Senior programme management told the team that all academic staff used Moodle whereas students stated that not all did.

The teaching staff reported that there is a specialist pedagogical unit in the University. It was reported in the meetings that this is used by new staff and for some on-going training but the full extent of its use could not be analysed or discussed as this was not well documented in the self-evaluation report. It appears that peer-to-peer evaluation of teaching is not currently used in the University and the review team considers that its introduction might be a helpful development.

The University encourages staff development activities including attendance at national and international conferences and participation in external training activities. During the period 2013-2016 16 lecturers attended short term professional training overseas and 8 attended courses and seminars. During the same period 16 lecturers participated in international exchanges, funded by the ERASMUS programme, delivering lectures in overseas universities. Academic staff are also involved in several collaborative research projects funded by the European Union, the Baltic Sea Sturgeon Association and other agreements are under active development.

#### **2.4. *Facilities and learning resources***

The Faculty of Water and Land Management has successfully secured funds to enable refurbishment of laboratories and classrooms and for purchasing scientific equipment and library materials to support the delivery of the programme.

The University has a large number of laboratories that are used for practical work, those in Water Chemistry, Fish Breeding and Fish Farming being the most important for this programme. However, the review team's visit to facilities and the review of the curriculum showed that practical learning was focused more on technological rather than biological aspects. For example, students complete hydraulic engineering laboratory work or visit pond fisheries farms where they analyse the hydro-technical structures of these farms. The review team learned of plans for additional research projects, involving international partners. For example, collaboration with a Swedish firm on types of feed is anticipated.

The University has three circulatory systems for hatching and raising various fish species, although there is scope to increase the extent to which these are utilised by students. The number and size of the tanks and width of the access walkways also imposes a constraint on how many students can work with them at any point in time. Consumables for thesis research and access to the recirculation systems are provided free of charge.

Students have well-organised access to laboratories and some have obtained part-time work there. Students also have opportunities to take part in staff scientific and applied research as an extra-curricular activity to extend their knowledge and research skills. Students are satisfied with their access to the laboratories but some felt they needed more encouragement from staff to get involved in University research projects. The University has working arrangements with some aquaculture farms within a 60 km radius. These facilities are used to demonstrate commercial systems to students and provide opportunities for them to discuss their operation with farmers and managers. Students welcomed this interaction with commercial enterprises. They stated that it helped them to understand different aquaculture systems and to gain an understanding of the scale of activity required for financial and commercial viability. The review panel saw great value in this exposure to commercial units.

The University has arrangements for students training practice in the enterprises of social partners (private and governmental fish farms), governmental organizations (Fisheries Service under Ministry of Agriculture) and other higher education institutions. The review team learned that students have a free choice of summer practice. Before students undertake their Practice of Professional Activity a tripartite agreement involving the student, university and partner must be agreed and signed so that the student is able to successfully complete the work.

Use of the university experimental station enables students to study pond fish farming and complete recreational fishing practical work. The programme has social partners who offer access to recreational fishing as well. This was evaluated as well organized for students and the review team sees merit in exposure to another facet of fisheries - particularly for the development of tourism in rural areas.

The students the review team met reported that library resources, including books and workstations and their access to them, were adequate. Teaching materials are adequate and accessible. The University library offers learning resources and computer workspaces and reading-rooms for students. First year students have training on how to find useful and relevant information in library databases. Publications and books can be ordered online and issued for up to one academic year to students. Free access to subscription scientific databases (17 in total) from home computer is an additional advantage that is welcomed by students. However, they expressed a desire to have more books available in electronic format. They also noted that there is a shortage of books on aquaculture in the Lithuanian language. Resources are available in other languages and the linguistic skills of some students may need additional assistance so that they can effectively utilise them. Some additional material should be acquired for fish biology. Specialist software is used for the modules in Geographic Information Systems and Computer

Aided design. The University has licences that enable students to install versions of the software on their own computers.

The social partners identified a demand for specialists in aquaculture and fisheries in industry, business, research and national ministries. These national requirements could have been better quantified in the self-evaluation report.

If this programme is to be successful, it will need to build up a credible level of research activity and students must be encouraged to engage in research from the outset. The research facility in genetics associated with the programme, Smart Animal Husbandry, may form the basis for some internal collaboration.

### **2.5. *Study process and students' performance assessment***

The entrance requirements for this programme are clearly described on the University website and are aligned to national requirements. The University promotes the programme to prospective students and a promotional video is shared on the University, Faculty and social media websites. There is clear evidence that the University wants to recruit committed students and it uses its contacts with national agencies such as the Lithuanian Land Management and Hydraulic Engineering Union to increase awareness of the programme. Recruitment has been consistent over the last three years. The programme admitted 17 students in 2014 and 2015 and 18 in 2016. The self-evaluation report provides data on the profile of students admitted to the programme. The entry scores of those admitted were slightly lower in 2016 than in the previous two years. However the percentage selecting this programme as their first choice has increased from 12.3 to 28.6% over the three years it has been in operation. The review team commends the promotional activity of the University and its focus on attracting high calibre students.

The review team learned from some students that they felt misled by a perceived mismatch between the title, aims and objectives on the one hand and their actual experience of the programme. Some students explained that they did not anticipate the extent of the emphasis on technology when they selected this programme of study. Others were quite satisfied that the emphasis on technology met their expectations. At the end of the first cycle, it would be appropriate to see if there are any trends emerging on student satisfaction with the overall structure of the programme. The programme management team needs to clarify what the course delivers and students must understand this clearly before they commence their studies. Such a clarification will assist student motivation and satisfaction.

Important general information for students including University procedures and regulations and advice on study support is easily accessed from the University website. More specific

information that is directly relevant to the programme is provided in the first semester module Introduction to the Studies of Technologies of Fisheries and Agriculture.

The teaching schedule is well organised. Students experience an appropriate variety of learning opportunities including lectures, seminars and consultations, practical classes, outside visits, training and professional practice. This ensures proper implementation of the programme and achievement of the intended learning outcomes.

Laboratory work, the undergraduate thesis, training and professional practice that are an integral part of the programme ensure that students engage in scientific and applied scientific activities. The review team visited the research and laboratory facilities. As noted in section 2.4 these are well equipped. The students the review team met spoke of a need for more opportunities to undertake scientific work and research. This interest is admirable and provides opportunities for broader student engagement; The review team considers that the students desire for greater involvement in research may be due to the fact that the programme has not yet completed its first cycle or established a comprehensive research programme. As no theses work was available it is not possible to establish the breadth and depth of student research. The review panel recommends that students be introduced to research at the earliest possible opportunity on the programme.

Opportunities to work and study abroad are published on the University website. Since the programme started in 2014 6 students have studied in overseas universities under the ERASMUS and Nordplus schemes. The students expressed a desire to have more opportunities available for international exchange and study. They emphasised that these partnerships need to be with compatible, well-aligned programmes being delivered in an appropriate language.

The review team sees the development of such relationships as essential elements for future development. Additional language training would be of benefit to students who wish to avail of international study experiences.

The University has well established systems for providing pastoral and academic support, opportunities to engage in sporting and cultural activities and careers advice. Mentors that are assigned to study groups for the entire duration of the programme develop students' sense of community and help with problem solving. Lecturers have timetabled slots during which they provide consultations on study related issues. The University provides opportunities for the development of individual schedules of study for mature students, for parents who are raising minor children and for those with disabilities. The review panel was impressed with this flexibility. The academic staff displayed a strong focus on a cycle of continuous improvement. They described to the panel annual review meetings that considered individual student

performance, feedback from surveys, a team approach to module review and a strong interest in student welfare.

Students complete a variety of assessment tasks including essays, practical and placement reports, projects and an undergraduate thesis as a examinations. These enable lecturers to test achievement of learning outcomes. Student work is marked using the ten-point grading system. The students were satisfied with the assessment process and said they were content with the fair treatment they received from the teaching staff. Because this programme has not yet had one full cycle of delivery, there were some elements of the study process which the review team could not assess: no theses have yet been completed. However the review team was able to review a limited amount of student coursework. There was some evidence in this that the complexity of biology in fisheries may not be receiving sufficient attention in respect of the diversity of species. This again emphasises the need for appropriately trained fisheries specialists. In respect of hydro-technology the review team saw evidence in laboratories and coursework of a good quality.

As no graduates of this programme are yet available, the review team does not have a complete picture of the adequacy of practical work. The first cohort of students recruited into the programme in 2014 will undertake their Practice of Professional Activity in the summer of 2017. The social partners suggested that the timing of practice should be aligned with the cycle of aquaculture production. Students also expressed a wish for more practical work.

Over-exploitation of fish resources in the seas and oceans of the European Union has resulted in strict restrictions on fishing in open waters and policies and initiatives to promote aquaculture. One of the aims of the Operational Programme for the Lithuanian Fisheries Sector is “To support the main goals of the Common Fisheries Policy through promotion of sustainable, viable, innovative and competitive fishing and aquaculture...” The self-evaluation report also notes that employers have commented that graduates in biology and ecology do not meet their needs as they lack knowledge of the technologies associated with aquaculture. Hence the programme meets state economic and future development needs. At the time of the review the programme had not completed one full cycle and therefore it was not possible to obtain the views of employers on graduates. The self-evaluation report notes that the University plans to obtain this information in 2018, once the first cycle has been completed.

Students were not aware of any formal process for managing complaints and appeals. The University has documented procedures for the resolution of disputes and appealing against examination results. However, the students the review team met were unaware of these. When review team asked students about how they deal with these matters they spoke of dealing informally with teaching staff.

The students the review team met commented that attendance at lectures was variable, with in some cases only half of the class present. This was explained as arising in some instances from student part-time employment. In reviewing the first complete cycle of the programme, the panel recommends that the University analyse this issue.

## **2.6. *Programme management***

The University has comprehensive, well-documented and publicly available procedures for quality assurance that are applied to all its programmes. These are intended to ensure that students and social partners are involved in programme management and that any changes proposed are checked and approved by higher level authorities within the University. Responsibilities for programme management are clearly allocated. The Study Programme Committee is responsible for the primary monitoring of the programme. It consists of teachers from the programme and has a representative from students and one from the social partners. Any recommendations are submitted for consideration to the Faculty Council and require the approval of the University Senate. The panel saw merit in this structure, particularly as the Study Programme Committee displayed a capacity for self-reflection and self-analysis.

In its discussions with senior management and teaching staff the review team was given an outline of the workings of the Study Programme Committee. However, the students the review team met were not aware of its existence or purpose. The University conducts a large number of annual surveys of students covering different aspects of their experience in the University, including the quality of teaching staff and study subjects. However, the procedures used to analyse the responses and discuss the findings of these surveys were unclear. Students reported that they did not feel that completing questionnaires led to any developments or changes for them. It is clear from reading the self-evaluation report that the group responsible for compiling it had worked in a systematic manner but there were deficits in the range of its consultations. The extent of student involvement in the process was very limited. This suggests an incomplete integration of the students into the quality assurance system for this programme.

Students expressed the view that they are required to complete too many surveys and that this lowers their interest in and engagement with them. The review team concluded that a more targeted approach to their use is required and that other methods for eliciting student feedback should be used. In addition, in order to ensure their continued engagement with this process, students must be kept informed of survey findings and how the University has responded to them.

There is little evidence in the self-evaluation report of any formal benchmarking of this programme against similar programmes in other institutions. The review team believes that such



an exercise could usefully inform programme development and recommends that steps be undertaken to find appropriate national and international comparators. This will enhance the current practice.

The programme's senior managers must also address the imbalance of technological and biological subjects within the curriculum and the shortage of teaching staff with expertise in fish biology.

Although the University has a large number of international partners at present it has few for this programme. The self-evaluation report notes a number of agreements that have been signed recently and others that are being developed. It is essential that such partnerships be developed immediately so that staff can keep up-to-date, so that students are exposed to best international practice and so that there are increased opportunities for staff and student mobility and collaboration in research programmes.

## **2.7. Examples of excellence \***

### **III. RECOMMENDATIONS**

The University is recommended to:

1. Redress the imbalance between biological and technological components on the programme.
2. Ensure that the programme has sufficient appropriately qualified specialist staff with expertise in the biology of fisheries.
3. Utilise student feedback effectively so that it leads to on-going programme improvement.
4. Ensure that students have a more meaningful involvement in the quality assurance of the programme.
5. Develop a broader range of research for the programme to encompass a wider diversity of species.
6. Ensure students have access to a wider range of practical expertise through using the facilities and expertise of the social partners and other scientific institutions.
7. It appears that peer-to peer evaluation of teaching is not currently used in the University and Review Panel would recommend this might be a helpful development.
8. Develop a wide range of well-aligned national and international academic and industry partnerships that can be used to enhance student learning and involvement in research.
9. Benchmark the programme against comparable national and international programmes.

#### **IV. SUMMARY**

The programme aims and learning outcomes are set at an appropriate level. The aims arise from a thorough analysis of the national, E.U and global context of fisheries and aquaculture. The learning outcomes show evidence of internal progression in respect of knowledge, skills and competences.

The curriculum conforms to national requirements. It develops in a systematic way but there is scope for some rebalancing of the technological and biological components.

The title of the programme should be reconsidered if the current focus on technology is maintained, taking into consideration its freshwater focus and its emphasis on aquaculture systems, The review team was informed that the programme is being kept under review and that the possibility of changing its title to Aquaculture Technologies is being considered. The Review Panel concluded that the alternative title, which is being considered by the programme study board reflects more accurately the current technological focus of the programme.

The university should address the need for specialist staff to teach the biological subjects in fisheries. This should be undertaken in the context of the review of the balance between technology and fisheries on the programme. Any development of a post –graduate stream would need prior consideration of the requirement for specialist staff in fisheries.

At the completion of the first cycle of the programme, a review of student responses to teaching methods should be undertaken. The approach adopted by the University to the administration of questionnaires to students should be reviewed. Students had no awareness of any process of analysis of the questionnaires, of any feedback loop or of any changes resulting from completing the questionnaires.

The academic staff displayed a strong focus on a cycle of continuous improvement. Their attention to on-going review is to be commended.

The laboratory facilities meet the needs the programme and there is good involvement with social partners who offer real-life exposure to commercial enterprises.

Student involvement in research should be reviewed by the Study Programme Committee on completion of the first cycle of the programme

The programme needs additional international partners so that students and staff may have more exposure to best international practice. These international programmes must offer teaching in a language that suits students' needs.

The student response to their experience on the programme was mixed. Those who responded negatively felt that there was insufficient attention to the biological elements of fisheries. It is important that, at recruitment stage, students understand the focus of the programme.

It is important that current scientific knowledge in relation to the biological diversity of fisheries is taught on this programme. The course-work examined by the review team was not sufficiently rigorous in respect of this area of learning.

The student on this programme should be familiar with the formal procedures for appeal and complaint that must form an essential component of the University's quality assurance system.

Students must be more involved in the operation of The Study Programme Committee. Their views on the use of questionnaires should be taken into consideration when the effectiveness of the current procedures are assessed. Students should be provided with feedback on the analysis of surveys.

## V. GENERAL ASSESSMENT

The study programme *Technologies of fisheries and aquaculture* (state code – 6121IX011) 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	3
2.	Curriculum design	2
3.	Teaching staff	2
4.	Facilities and learning resources	3
5.	Study process and students' performance assessment	3
6.	Programme management	2
	<b>Total:</b>	<b>15</b>

\*1 (unsatisfactory) - there are essential shortcomings that must be eliminated;

2 (satisfactory) - meets the established minimum requirements, needs improvement;

3 (good) - the field develops systematically, has distinctive features;

4 (very good) - the field is exceptionally good.

Grupės vadovas: Team leader:	Marion Coy
Grupės nariai: Team members:	Dr. David Wright
	Dr. Rein Lillak
	Kęstutis Skrupskelis
	Iveta Mykolaitytė

**ALEKSANDRO STULGINSKIO UNIVERSITETO PIRMOSIOS PAKOPOS STUDIJŲ  
PROGRAMOS ŽUVININKYSTĖS IR AKVAKULTŪROS TECHNOLOGIJOS  
(VALSTYBINIS KODAS – 6121IX011) 2017-08-22 EKSPERTINIO VERTINIMO  
IŠVADŲ NR. SV4-183 IŠRAŠAS**

### V. APIBENDRINAMASIS ĮVERTINIMAS

Aleksandro Stulginskio Universiteto studijų programa *Žuvininkystės ir akvakultūros technologijos* (valstybinis kodas – 6121IX011) vertinama **teigiamai**.

Eil. Nr.	Vertinimo sritis	Srities įvertinimas, balais*
1.	Programos tikslai ir numatomi studijų rezultatai	3
2.	Programos sandara	2
3.	Personalas	2
4.	Materialieji ištekliai	3
5.	Studijų eiga ir jos vertinimas	3
6.	Programos vadyba	2
	<b>Iš viso:</b>	<b>15</b>

\* 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

Studijų programos tikslai ir studijų rezultatai yra tinkami. Tikslai nustatyti atlikus išsamią šalies, Europos Sąjungos ir pasaulio žuvininkystės bei akvakultūros analizę. Studijų rezultatai rodo studentų žinių, įgūdžių ir kompetencijų pažangą.

Studijų turinys atitinka nustatytus reikalavimus. Jis parengtas sistemingai, tačiau būtų galima perskirstyti technologijų ir biologijos komponentų santykį.

Jei toliau pagrindinis dėmesys bus skiriamas technologijoms, reikėtų iš naujo apsvarstyti studijų programos pavadinimą, atsižvelgiant į gėlo vandens ir akvakultūrų sistemų akcentavimą. Ekspertų grupė buvo informuota, kad studijų programa nuolat peržiūrima ir svarstoma galimybė jos pavadinimą pakeisti į *Akvakultūrų technologijos*. Ekspertų grupė padarė išvadą, kad toks pavadinimas, kurį svarsto Studijų programos valdyba, tiksliau atspindi dabartinį studijų programos susitelkimą į technologijas.

Universitetas turi išspręsti specialistų, kurie galėtų dėstyti žuvininkystės biologijos dalykus, poreikio klausimą. Tai reikėtų atlikti išanalizavus studijų programos technologijų ir žuvininkystės dalykų pusiausvyrą. Planuojant doktorantų srautą, pirmiausiai reikia apsvarstyti žuvininkystės srities specialistų poreikį.

Užbaigus pirmosios studijų pakopos programą reikia išnagrinėti studentų atsiliepimus apie dėstyto metodus. Reikia peržiūrėti metodą, kurį taiko universitetas studentų apklausoms administruoti. Studentai nežino klausimynų analizės proceso, grįžtamojo ryšio ciklo arba pakeitimų, kurie buvo atlikti atsižvelgus į apklausas.

Akademinis personalas daug dėmesio skyrė nuolatiniam tobulinimuisi. Vertinamas dėstytojų dėmesys vykdomam vertinimui.

Laboratorių materialioji bazė atitinka studijų programos poreikius, plėtojamas geras bendradarbiavimas su socialiniais partneriais, kurie studentams suteikia galimybes susipažinti su realiomis sąlygomis komercijos įmonėse.

Baigus studijų programos pirmąją pakopą, Studijų programos komitetas turi iš naujo įvertinti studentų dalyvavimą moksliniuose tyrimuose.

Studijų programai reikia daugiau tarptautinių partnerių, kad studentai ir dėstytojai turėtų galimybę susipažinti su geriausia tarptautine praktika. Šios tarptautinės studijų programos turi siūlyti studijas ta kalba, kuri labiausiai atitinka studentų poreikius.

Studentų nuomonės apie šią studijų programą skiriasi. Tie, kurie įvertino neigiamai, mano, kad nepakankamai dėmesio skiriama žuvininkystės biologijos dalykams. Svarbu, kad priėmimo etape studentai suprastų, į ką nukreipta ši studijų programa.

Svarbu, kad studijų programa suteiktų naujausių mokslo žinių apie žuvininkystės biologinę įvairovę. Ekspertų grupės išnagrinėtas kursas nebuvo pakankamai griežtas, jei vertintume šią mokymo sritį.

Studijų programos studentai turėtų būti susipažinę su formalia apeliacijų ir skundų teikimo tvarka, tai turi būti pagrindinė universiteto kokybės užtikrinimo sistemos sudedamoji dalis.

Studentai turi aktyviau dalyvauti Studijų programos komiteto veikloje. Vertinant dabartinių procedūrų veiksmingumą, reikėtų atsižvelgti į jų nuomones apie klausimynų naudojimą. Studentams turėtų būti pateikiamas apklausų analizės grįžtamasis ryšys.

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### **III. REKOMENDACIJOS**

Universitetui rekomenduojama:

1. Išspręsti šios studijų programos biologijos ir technologijos komponentų disbalansą.

2. Užtikrinti, kad ši studijų programa turėtų pakankamai kvalifikuotų specialistų, turinčių patirties žuvininkystės biologijos srityje.
3. Veiksmingai išnaudoti studentų grįžtamąjį ryšį, kuris leistų nuolat tobulinti studijų programą.
4. Užtikrinti studentų prasmingesnį dalyvavimą studijų programos kokybės užtikrinimo procese.
5. Parengti šios studijų programos platesnį mokslinių tyrimų spektrą, kad būtų įtraukta didesnė rūšių įvairovė.
6. Pasinaudojus socialinių partnerių ir kitų mokslo institucijų materialiąja baze ir patirtimi užtikrinti, kad studentai turėtų prieigą prie platesnės praktinės patirties.
7. Šiuo metu universitetas netaiko kolegų atliekamo dėstymo vertinimo, tačiau, ekspertų grupės nuomone, tai būtų naudinga.
8. Kurti platų tinkamai suderintų nacionalinių ir tarptautinių akademinų ir pramonės partnerysčių tinklą, kuris leistų pagerinti studentų mokymąsi ir dalyvavimą moksliniuose tyrimuose.
9. Palyginti šią studijų programą su kitomis šalies ir tarptautinėmis studijų programomis.

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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)