STUDIJŲ KOKYBĖS VERTINIMO CENTRAS
CENTRE FOR QUALITY ASSESSMENT IN HIGHER EDUCATION

BIOLOGY FIELD OF STUDY

AT KLAIPEDA University

EXTERNAL EVALUATION REPORT

Expert panel:

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2. Academic member: Prof. dr. Ane Timenes Laugen
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SKVC coordinator: Dr. Ona Šakalienė

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I. INTRODUCTION

1.1. OUTLINE OF THE EVALUATION PROCESS

The field of study evaluations in Lithuanian higher education institutions (HEIs) are based on the following:

- Procedure for the External Evaluation and Accreditation of Studies, Evaluation Areas and Indicators, approved by the Minister of Education, Science, and Sport;
- Methodology of External Evaluation of Study Fields approved by the Director of the Centre for Quality Assessment in Higher Education (SKVC);
- Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG).

The evaluation is intended to support HEIs in continuous enhancement of their study process and to inform the public about the quality of programmes within the field of study.

The object of the evaluation is all programmes within a specific field of study. A separate assessment is given for each study cycle.

The evaluation process consists of the following main steps: 1) Self-evaluation and production of a self-evaluation report (SER) prepared by an HEI; 2) A site visit by the review panel to the HEI; 3) The external evaluation report (EER) production by the review panel; 4) EER review by the HEI; 5) EER review by the Study Evaluation Committee; 6) Accreditation decision taken by SKVC; 7) Appeal procedure (if initiated by the HEI); 8) Follow-up activities, which include the production of a Progress Report on Recommendations Implementation by the HEI.

The main outcome of the evaluation process is the EER prepared by the review panel. The HEI is forwarded the draft EER for feedback on any factual mistakes. The draft report is then subject to approval by the external Study Evaluation Committee, operating under SKVC. Once approved, the EER serves as the basis for an accreditation decision. If an HEI disagrees with the outcome of the evaluation, it can file an appeal.On the basis of the approved EER, SKVC takes one of the following accreditation decisions:

- **Accreditation granted for 7 years** if all evaluation areas are evaluated as exceptional (5 points), very good (4 points), or good (3 points).
- **Accreditation granted for 3 years** if at least one evaluation area is evaluated as satisfactory (2 points).
- **Not accredited** if at least one evaluation area is evaluated as unsatisfactory (1 point).

If the field of study and cycle were **previously accredited for 3 years**, the re-evaluation of the field of study and cycle is initiated no earlier than after 2 years. After the re-evaluation of the field of study and cycle, SKVC takes one of the following decisions regarding the accreditation of the field of study and cycle:

- To be accredited for the remaining term until the next evaluation of the field of study and cycle, but no longer than 4 years, if all evaluation areas are evaluated as exceptional (5 points), very good (4 points) or good (3 points).
- To not be accredited, if at least one evaluation area is evaluated as satisfactory (2 points) or unsatisfactory (1 point).

1.2. REVIEW PANEL

The review panel was appointed in accordance with the Reviewer Selection Procedure as approved by the Director of SKVC.

The composition of the review panel was as follows:

1. Panel chair: Prof. Ph.D. Grzegorz Węgrzyn, Professor at Department of Molecular Biology, Faculty of Biology, University of Gdansk (Poland);
2. Academic member: Prof. dr. Ane Timenes Laugen, Professor at Department of Natural Sciences, University of Agder Kristiansand (Norway);
3. Academic member: Assoc. Prof. Mirela Sertić Perić, Associate Professor at Department of Biology, Faculty of Science, University of Zagreb (Croatia);
4. Student representative: Karolina Limanovskaja, second-year student of the second-cycle molecular biotechnology study program of Vilnius University Life Sciences Center (Lithuania).

1.3. SITE VISIT

The site visit was organised on 7 January 2025 onsite/online/in hybrid.

Meetings with the following members of the staff and stakeholders took place during the site visit:

- Senior management and administrative staff of the faculty(ies);
- Team responsible for preparation of the SER;
- Teaching staff;
- Students;
- Alumni and social stakeholders including employers.

There was no need for translation and the meetings were conducted in English.

1.4. BACKGROUND OF THE REVIEW

Overview of the HEI

Klaipėda University (abbreviated as KU) was founded in 1990, and it a classical University. Its academic activity is characterized as a multidisciplinary centre for marine sciences and studies of the Baltic Sea region. The study is integrated into international academic networks. KU aims to be the foremost institution for the sustainable social, cultural and economic advancement of the region. KU is governed by a Rector, a nine-member Council and a 35-member Senate (7 students are members of this body); all of them are elected for five years. The administration includes also a Vice-Rector, Departments of Studies, Science and Innovation, Organisation Services, Internal Audit, Communications and Marketing, Legal and Procurement, Strategic Development and Economics, Finance and Accounting, Information Resource and Publishing Departments, Service Centre, the Chief Financial Officer and the Rector's advisers. There are three faculties (Social Sciences and Humanities, Marine Technology and Natural Sciences, and Health Sciences) and two institutes (Baltic Region History and Archaeology, and Marine Research) at KU. The University has its own publishing house, which publishes monographs, scientific journals, conference proceedings, textbooks, and other publications. KU provides bachelor's, master's, and doctoral study programs.

Overview of the study field

The first-degree Biology and Marine Biotechnology study program (established in 2019) is conducted at the Marine Research Institute (MRI). It is the Lithuania's leading center for marine research, development, and innovation. MRI offers study programs at all three levels (BSc, MSc and PhD), with strong integration of study and research activities. Students benefit from numerous research opportunities, and scientific or professional career pathways.

Previous external evaluations

The previous evaluation (finished in 2022, but evaluating the period up to 2021) accredited the Biology and Marine Biotechnology study programme for a three-year period. The overall programme evaluation score was 22. The specific evaluation areas were ranked as satisfactory (Intended and achieved learning outcomes and curriculum; Teaching staff; and Study quality management and public information), good (Teaching and learning, student performance and graduate employment), very good (Student admission and support; Learning facilities and resources), and excellent (Links between science and studies). The experts indicated 18 recommendations, in all 7 evaluation areas, for the Biology and Marine Biotechnology study programme.

Documents and information used in the review

The following documents and/or information have been requested/provided by the HEI before or during the site visit:

- *Self-evaluation report and its annexes*
- *Final theses*

Additional sources of information used by the review panel:

The following additional sources of information have been used by the review panel:

- *Inspection of the teaching/learning facilities*
- *Information gained during meeting with particular groups*

II. STUDY PROGRAMMES IN THE FIELD

First cycle/LTQF 6

Title of the study programme	**Biology and Marine Biotechnology**
State code	6121DX014
Type of study (college/university)	University
Mode of study (full time/part time) and nominal duration (in years)	Full-time (4 years)
Workload in ECTS	240
Award (degree and/or professional qualification)	Bachelor of Life Sciences
Language of instruction	Lithuanian
Admission requirements	Secondary education (https://www. https://www.ku.lt/lt/priemimas-1)
First registration date	1997-05-19
Comments (including remarks on joint or interdisciplinary nature of the programme, mode of provision)	The programme is characterized by an interdisciplinarity while focused on marine science. It covers as different fields as coastal and marine management, modelling, remote sensing and water quality, water transport and air pollution, modern engineering systems, biological invasions and environmental genetics, benthic ecology, plankton, aquatic biogeochemistry and ecosystem functioning, water resources, fisheries and aquaculture. In addition, students performing diploma theses are involved in interdisciplinary applied research in the fields of ecosystem management, environmental monitoring, spatial planning, environmental impact assessment, integrated coastal zone management and environmental education.

III. ASSESSMENT IN POINTS BY CYCLE AND EVALUATION AREAS

The **first cycle** of the *biology* field of study is given a **positive** evaluation.

No.	Evaluation Area	Evaluation points[1*]
1.	Study aims, learning outcomes and curriculum	5
2.	Links between scientific (or artistic) research and higher education	5
3.	Student admission and support	4
4.	Teaching and learning, student assessment, and graduate employment	4
5.	Teaching staff	5
6.	Learning facilities and resources	4
7.	Quality assurance and public information	4
	Total:	31

IV. STUDY FIELD ANALYSIS

AREA 1: STUDY AIMS, LEARNING OUTCOMES AND CURRICULUM

1.1.	Programmes are aligned with the country's economic and societal needs and the strategy of the HEI

FACTUAL SITUATION

1.1.1. Programme aims and learning outcomes are aligned with the needs of the society and/or the labour market

The Self-Evaluation Report (SER) combines the descriptions for Criteria 1.1 (Evaluation of the alignment of the aims and outcomes of the study programme with societal and/or labor market needs) and 1.2 (Evaluation of the alignment of the study programme aims and outcomes with the mission, objectives, and strategy of the Higher Education Institution). These two criteria are not addressed separately, but instead, the factual information related to both criteria is presented together in the following section. According to the SER, the Biology and Marine Biotechnology Bachelor's degree program at Klaipėda University (KU) belongs to the group of life sciences in

1*

1 (unsatisfactory) - the area does not meet the minimum requirements, there are substantial shortcomings that hinder the implementation of the programmes in the field.
2 (satisfactory) - the area meets the minimum requirements, but there are substantial shortcomings that need to be eliminated.
3 (good) - the area is being developed systematically, without any substantial shortcomings.
4 (very good) - the area is evaluated very well in the national context and internationally, without any shortcomings.
5 (exceptional) - the area is evaluated exceptionally well in the national context and internationally.

Lithuania and focuses on applied marine biotechnology. The program aims to meet the growing needs of the blue bioeconomy in Lithuania, especially in Klaipėda, and focuses on the sustainability of marine resource management through aquaculture and biotechnology. The program focuses on training highly qualified specialists in marine biotechnology, who will be prepared for the labour market in areas such as food, pharmaceuticals, cosmetics, and biofuels. The university's strategic direction is in line with regional priorities for sustainable development, and focuses on blue biotechnology and the blue bioeconomy. Expected outcomes for graduates include the acquisition of basic biological knowledge, practical research skills, and competencies in marine biotechnology, as outlined in the programme's list of expected learning outcomes in Table 1.1. of the SER. Graduates can work in a variety of fields, including life sciences, biomedicine, agriculture, environmental management and biotechnology-oriented industries. While the report mentions alignment with KU's strategic goals and focus on the blue bioeconomy, there is a lack of specific evidence or data showing how the goals and outcomes of the degree program have been evaluated or updated in response to KU's mission, strategic goals, or evolving societal and labour market needs. In addition, there is no concrete evidence (e.g., employment rates, industry collaborations, or feedback from graduates) to show how well the program is meeting its goals or closing identified skills gaps in the labour market. Although the program targets the blue bioeconomy, the report does not provide data on the actual demand for such professionals or specific labour market trends in Lithuania and the Baltic Sea region that would strengthen the relevance of the program. There is also no mention of how the needs of students or external stakeholders (e.g., employers, marine research institutions) are included in the development or continuous evaluation of the program.

1.1.2. Programme aims and learning outcomes are aligned with the HEI's mission, goals, and strategy

The Self-Evaluation Report (SER) merges the descriptions for Criteria 1.1 (Evaluation of the alignment of the aims and outcomes of the study programme with societal and/or labor market needs) and 1.2 (Evaluation of the alignment of the study programme aims and outcomes with the mission, objectives, and strategy of the Higher Education Institution). These criteria are not addressed separately; rather, the factual information for both is presented together in Section 1.1.

ANALYSIS AND CONCLUSION (regarding 1.1.)

Ad. 1.1.1. Based on the self-evaluation report (SER) and the insights gained from interviews with various stakeholders, it is clear that Klaipėda University (KU) has made great progress in aligning its bachelor's degree program in Biology and Marine Biotechnology with the growing needs of the blue bioeconomy. The program, which is unique in Lithuania, plays a key player in meeting the region's demand for marine biotechnology professionals. The university's strategic focus on the blue bioeconomy is well-reflected in its curriculum, which emphasizes practical research skills, sustainability in marine resource management and hands-on experience through summer internships. Feedback from graduates indicates that the program prepares students for both the job market and further academic pursuits. Many graduates continue their studies in master's programs or secure positions in government agencies, nature reserves and marine-related industries. Collaboration with industry partners, including environmental agencies and biotechnology companies, ensures that the program remains practical and adapts to evolving trends in the blue bioeconomy. In addition, the university has incorporated feedback from its social partners into the curriculum to address knowledge gaps in biotechnology and improve the practical aspects of the program. Despite some challenges, such as balancing student numbers and faculty resources, KU's commitment to research-led education and sustainability, supported by EU infrastructure projects

and regional initiatives, sets it up for long-term success. The merger of the Faculty of Marine Technology and the Marine Research Institute has further strengthened the capacity of the program, with well-established facilities and a strong network of industry partners supporting the program's mission.

Ad. 1.1.2. As the descriptions for Criteria 1.1 (Evaluation of the alignment of the aims and outcomes of the study programme with societal and/or labor market needs) and 1.2 (Evaluation of the alignment of the study programme aims and outcomes with the mission, objectives, and strategy of the Higher Education Institution) are combined in Section 1.1. of the Self-Evaluation Report (SER), the expert opinion is presented in Section 1.1.

1.2.	Programmes comply with legal requirements, while curriculum design, curriculum, teaching/learning and assessment methods enable students to achieve study aims and learning outcomes

FACTUAL SITUATION

1.2.1. Programmes comply with legal requirements

The self-evaluation report (SER) emphasizes that the Biology and Marine Biotechnology Bachelor's degree programme at Klaipėda University(KU) complies with both national and international legal requirements and is based on several important legal acts in Lithuania (Law on Science and Studies of the Republic of Lithuania, General Requirements for Study Implementation, Description of Study Cycles, Description of the Group of Study Areas of Life Sciences, KU's own Resolution on Study Regulations). The study programme is based on the European Credit Transfer and Accumulation System (ECTS), which ensures that credits are awarded based on the amount of time and work required for students to achieve the learning outcomes of the subject. The programme offers 240 ECTS credits over four years, with a clear structure of field of study subjects (161 ECTS in total during the study period) and electives (including general education electives (21 ECTS) and field of study electives divided into four groups during the study period (20 ECTS)), practice/traineeship courses (18 ECTS in total), and a Bachelor thesis (20 ECTS). The study plan, which is available in English as Appendix 1, contains a clear list of ECTS credits, the student workload (contact hours and independent study), the lecturers and the distribution of courses over the individual eight semesters of the degree program. The subjects are evaluated every three years, although this may happen more frequently based on feedback from various stakeholders, including lecturers, students, and social partners. Each year, the program and subjects are reviewed and updated based on the feedback collected. While the report lists the legal acts that govern the program, it does not provide specific examples of how the legal requirements are implemented in practice within the program, such as alignment with student assessment regulations or the distribution of credits.

1.2.2. Programme aims, learning outcomes, teaching/learning and assessment methods are aligned

According to the SER, the Biology and Marine Biotechnology study program aims to ensure a clear alignment between objectives, learning outcomes and teaching, learning and assessment methods. This coherence is of central importance for improving the quality of the studies. SER has clearly defined 21 learning outcomes within the study programme, which are divided into five areas: Knowledge and skills (A1-A6), research skills (B1-B4), specific skills (C1-C4), social skills (D1-D4), and personal skills (E1-E3). These outcomes are linked to the programme's goals and are assigned to specific courses. On average, each course covers 4.5 learning outcomes, with 3-10 outcomes per course, depending on the subject. The learning outcomes that relate to specific knowledge are largely delivered in courses that focus on core subjects such as Chemistry, Environmental Physics,

and Biostatistics (Table 1.1 of the SER). Courses such as the Bachelor thesis and various specialized biotechnology subjects (e.g., Blue Biotechnology Development and Marketing, Micro-organisms in Marine Biotechnology) integrate several learning outcomes. This multidimensional approach ensures the effective achievement of the overall objectives of the program. The program employs a variety of teaching methods (17 in total), including interactive lectures, laboratory experiments, and seminars. These methods aim to cover different sets of learning outcomes. For example, “group project” and “problem-solving-based learning” are used for learning outcomes in categories A, B, D, and E, while other methods, such as “interactive lectures”, are aimed at specific learning outcomes such as the application of knowledge (A1-A6). A detailed overview of the teaching methods used to achieve the learning outcomes is shown in Figure 1.3.1 of the SER. The study program uses 15 different assessment methods, which vary depending on the teaching method. For example, group and individual projects are assessed using different methods, such as oral presentations, peer evaluations, self-assessments, and reports (Figure 1.3.2 of the SER). These assessments are aligned with the relevant teaching methods to ensure that the intended learning outcomes are assessed.

1.2.3. Curriculum ensures consistent development of student competences

According to the SER, the Biology and Marine Biotechnology study program is structured to ensure the consistent development of students' competences throughout their studies. Courses in semesters 1-6 provide basic knowledge in biology and life sciences, with a focus on the theoretical foundation of natural processes, supported by subjects in chemistry, physics and mathematics as well as general education electives. Courses in semesters 4-8 shift to more specialized training, focusing on hydrobiology, biotechnology, aquaculture and preparation for the bachelor's thesis. Students acquire specialized knowledge that integrates theory with practice, particularly in the areas of marine biotechnology and blue technology, including laboratory practice, traineeship and specialized electives. Throughout the program, students participate in practical exercises to reinforce theoretical knowledge and develop specific skills. On average, 30-50% of contact hours in each subject are dedicated to practical training, including laboratory work and exercises. The study program includes several practical components, including biological practice, laboratory practice and traineeship. In biological practice, students gain hands-on experience in collecting specimens, identifying species and understanding ecological relationships in different environments (terrestrial, aquatic and anthropogenic areas). This strengthens their knowledge of biology and other life sciences. Laboratory practice deepens practical skills, promotes independence and strengthens academic integrity through scientific application. The traineeship phase offers students the opportunity to apply their acquired knowledge in a professional environment and gain industry-specific experience in collaboration with employers. All these elements together ensure that students are well prepared for an academic or professional career in biology and marine biotechnology. However, the SER lacks a detailed insight into the content of the individual courses, which would clarify how each subject contributes to the overall objectives. Annex 1 of the SER provides an overview of the courses, work hours, semester distribution, and teachers, but does not include specific content for each course, making it difficult to fully understand how these outcomes align with the overall goals of the program.

1.2.4. Opportunities for students to personalise curriculum according to their personal learning goals and intended learning outcomes are ensured

The SER offers students various opportunities to customize the structure of their study program according to their personal learning objectives and desired learning outcomes. These options are mainly regulated by the KU's study regulations and the Rector's directives. Students can choose the following: (i) general education and special education electives from a list of available subjects; (ii)

their own practice and internship placements, aligned with their interests, career goals, and research topics; (iii) topics for their course project and bachelor thesis, either based on existing proposals or with their own suggestions, with the possibility to specialize in a specific research area. Two EU Conexus specializations, Blue Economy and Growth or Coastal Development and Sustainable Maritime Tourism, offer the possibility of additional specialization in the undergraduate studies. Opportunities for part-time study and internships in other institutions as part of exchange programs, including Erasmus, provide further personalization. Students can also complete voluntary internships that are not part of the official study program and/or take additional subjects outside the study plan for an additional fee. It is possible to postpone the date of examinations or thesis defence with the consent of the lecturer, and students can take a leave of absence from their studies for serious reasons and resume their studies under the same conditions. The SER makes no mention of support systems that pursue the personalization of students or help them to make informed decisions about the individual design of their studies.

1.2.5. Final theses (applied projects) comply with the requirements for the field and cycle

The SER points out that the preparation and defence of Bachelor's theses (BTs) is regulated by the Description of General Requirements for Independent Written and Artistic Works of KU Students. BT topics are primarily proposed by researchers at the Marine Research Institute (MRI) and reflect ongoing projects and research as well as social partners relevant to the industry. Students can also propose their own topics that reflect their individual interests. The SER highlights that approximately 80% of BTs defended between 2021 and 2024 were associated with joint projects with social and industry partners and addressed topics relevant to various stakeholders such as the Environmental Protection Agency, the Ministry of Environment, coastal municipalities, and others. The thesis topics for 2021-2024 are in line with the aims of the Biology and Marine Biotechnology programme and fit within the broader field of study of Biology. The topics reflect a broad range of areas: (i) Marine Ecology and Environmental Science (e.g., topics related to marine ecosystems, microplastics, oil degradation by microorganisms, faecal pollution in coastal areas, biodiversity of fish and parasites and the risk of sample contamination in marine biology), (ii) Marine Biotechnology and Aquaculture (e.g., topics related to aquaculture, such as growth and stress tolerance of shrimp in recirculating systems, microbial applications for environmental protection, including the use of microorganisms in oil degradation and wastewater treatment); (iii) Conservation & Marine Protection (e.g., topics on the impact of human activities on marine habitats and organisms, seafloor macrofauna communities and species-specific markers for identification of invasive species). Some theses are highlighted as awarded.

ANALYSIS AND CONCLUSION (regarding 1.2.)

Ad. 1.2.1. Based on the Self-Evaluation Report (SER) and the findings from interviews with stakeholders, it is evident that the Biology and Marine Biotechnology Bachelor's degree program at Klaipėda University (KU) aligns well with both national and international legal requirements. The program adheres to key Lithuanian legal acts, ensuring its compliance with relevant educational standards. The adoption of the European Credit Transfer and Accumulation System (ECTS) for structuring the program further supports its alignment with European norms, providing a transparent and consistent framework for student workload and credit allocation. The decision to extend the program to four years, incorporating more biotechnology and blue biotechnology topics, reflects responsiveness to both stakeholder feedback and evolving industry demands, marking an improvement since the previous reporting period. Students have expressed satisfaction with the revised structure, appreciating the added year, while maintaining flexibility for those wishing to complete the programme in three years. The process for attesting study subjects, with clear internal governance processes based on credit changes, ensures ongoing compliance with KU’s internal

regulations as well as external legal standards. Although the report provides a clear outline of the legal acts governing the programme, further concrete examples of how these requirements are implemented in practice, particularly in areas such as credit distribution, would strengthen the transparency of the programme's compliance efforts. Nonetheless, the programme appears to be well-structured, with a good retention rate and student satisfaction, indicating effective management in line with legal and educational standards.

Ad. 1.2.2. Based on the Self-Evaluation Report (SER) and insights from interviews with various stakeholders, it is clear that the Biology and Marine Biotechnology program at Klaipėda University (KU) is well-designed in terms of its aims, learning outcomes, and teaching/learning and assessment methods, ensuring coherence and alignment with the programme's objectives. The programme clearly defines learning outcomes across five areas –knowledge, research skills, specific skills, social skills, and personal skills – which are strategically linked to specific courses and provide a structured approach to achieving the program's goals. The teaching methods, which include a diverse range of approaches such as interactive lectures, laboratory experiments, and problem-solving-based learning, cater to the different sets of learning outcomes. This variety in teaching methods is highly appreciated by students, who report that the diversity keeps them engaged and motivated, fostering a deeper understanding of the subject matter. Additionally, students actively participate in group projects, create business plans, and even produce infographics, further demonstrating the effective engagement and practical application of their learning. Assessment methods are similarly varied, employing different approaches to evaluate the achievement of learning outcomes, including oral presentations, peer evaluations, and self-assessments. The alignment of these methods with the teaching approaches ensures that the programme delivers on its learning outcomes effectively. Teachers at Klaipėda University have also demonstrated a strong commitment to improving their teaching methods through self-initiated participation in numerous workshops, where they have adopted more contemporary teaching styles and methods. This proactive effort to enhance instructional practices contributes to a more dynamic and engaging learning environment. Furthermore, the involvement of industry and research partners in the curriculum design and delivery further enhances its relevance, allowing students to apply their learning in real-world contexts. This collaboration is integral in ensuring that the programme meets the demands of both the academic and professional spheres, aligning educational outcomes with societal and labour market needs. Overall, the programme demonstrates a strong commitment to delivering high-quality, engaging education that prepares students for the evolving blue bioeconomy.

Ad. 1.2.3. The Biology and Marine Biotechnology study programme at Klaipėda University (KU) is structured in such a way that students' skills are developed consistently and progressively throughout the course of study. The programme begins with basic courses in biology, chemistry, physics and mathematics in the first three semesters, which create a solid theoretical basis for natural processes. In semesters 4 to 8, the course transitions into specialized training, focusing on hydrobiology, biotechnology, and aquaculture, while preparing students for their Bachelor's thesis. This gradual transition from general to specialized knowledge is complemented by a strong focus on practical training. With 30-50% of contact hours devoted to practical work, including laboratory practice (in very wisely planned and well-equipped rooms at KU, balancing students/teaching and research/applied science needs), biological practice and traineeships, the program ensures that students develop both theoretical understanding and practical competence. Of particular note is the traineeship component, which offers students the opportunity to gain real-world experience in collaboration with employers, industry partners and alumni to ensure that students are well equipped for careers in biology and marine biotechnology. Strong networking between KU faculty, students, alumni and social partners fosters long-term relationships and collaborative opportunities, further enhancing the program's relevance to the field of marine biotechnology. Although the SER lacks

detailed course content that would better clarify how each subject specifically contributes to the overall goals of the program, it is clear from conversations with students, social/industry partners (employers), and alumni that the overall structure and focus of the programme appear to be well designed to ensure that students develop the necessary competencies for academic and professional success in marine biotechnology.

Ad. 1.2.4. The Biology and Marine Biotechnology study program at Klaipėda University (KU) offers a range of opportunities for students to personalize their study paths according to their individual learning objectives and career goals. The program allows for customization through a variety of options such as elective courses, internships, and thesis topics, which can be chosen based on students' interests and aspirations. Notably, students can select from two EU Conexus specializations – Blue Economy and Growth, and Coastal Development and Sustainable Maritime Tourism – as part of their undergraduate studies, providing an opportunity to further specialize within the broader field of marine biotechnology. These specializations are integrated into the programme as separate tracks, allowing students to develop in-depth knowledge in specific areas, with guidance provided by faculty and industry partners. Students are also encouraged to pursue part-time study options, internships at other institutions, and voluntary internships outside the formal study program. Additionally, the program includes provisions for flexibility, such as postponing exams or thesis defences with lecturer approval and taking a leave of absence for personal reasons. While the programme provides multiple avenues for customization, the SER does not specify any formal support systems or advisory structures aimed at helping students make informed decisions about personalizing their study paths. However, from the conversations with students, alumni, and social partners, it is clear that students have positive experiences with the flexibility and support available. Students express satisfaction with the variety of electives and opportunities for hands-on experience through internships and voluntary work. They also appreciate the guidance provided by professors, who are approachable and offer flexibility in balancing work and study. Social partners and alumni highlight that student are adequately prepared for internships and thesis topics, with real-world projects contributing to their academic and professional growth. The ongoing collaboration between KU and external stakeholders, including environmental agencies, research institutions, and industry partners, ensures that the program remains aligned with market demands and provides students with valuable exposure to the professional world. Nevertheless, while the options for personalization are well-received, the SER would benefit from a more detailed description of the specific support mechanisms in place to help students navigate these opportunities and ensure alignment with their long-term career goals.

Ad. 1.2.5. The evaluation of final theses (Bachelor's Theses, BTs) within the Biology and Marine Biotechnology program shows strong compliance with both field and cycle requirements. According to the Self-Evaluation Report (SER), thesis topics are primarily proposed by faculty at the Marine Research Institute (MRI) and external industry partners, reflecting ongoing research projects and addressing relevant environmental and marine challenges. Around 80% of BTs defended between 2021 and 2024 were linked to joint projects with social and industry partners, ensuring that research is directly applicable to real-world issues. The topics span diverse areas, including marine ecology, marine biotechnology, aquaculture, and conservation, and align with the program's objectives. The process for selecting thesis topics is highly flexible and student-centred. Students choose from a broad range of offered topics, visiting research groups to express their interests and discuss how these align with their academic focus. This system allows students to narrow down their options and engage in projects that reflect their specific interests. Additionally, there are opportunities to volunteer in ongoing projects, further enhancing their hands-on experience. The small size of the institute and the flexibility in mentor-student relationships mean that there are no strict limits on the number of students per mentor, fostering a supportive and personalized environment for academic

growth. This integration of higher education, research and industry, as inferred from conversations with multiple stakeholders during the site visit, ensures the program prepares graduates with the knowledge and skills needed for both academic and professional advancement.

AREA 1: CONCLUSIONS

AREA 1	Unsatisfactory - 1 Does not meet the requirements	Satisfactory - 2 Meets the requirements, but there are substantial shortcomings to be eliminated	Good - 3 Meets the requirements, but there are shortcomings to be eliminated	Very good - 4 Very well nationally and internationally without any shortcomings	Exceptional - 5 Exceptionally well nationally and internationally without any shortcomings
First cycle					X

COMMENDATIONS

1. Strong alignment with blue bioeconomy: Klaipėda University (KU) has successfully aligned its Biology and Marine Biotechnology Bachelor's program with the growing needs of the blue bioeconomy. This program plays a key role in fulfilling the regional demand for marine biotechnology professionals, providing a curriculum focused on practical research skills, sustainability in marine resource management, and hands-on experience through internships. Feedback from graduates indicates that the program effectively prepares students for both the job market and further academic studies.
2. Industry collaboration and stakeholder engagement: The program benefits significantly from close collaboration with industry partners, including environmental agencies and biotechnology companies. This collaboration ensures that the program stays relevant to real-world trends and the labor market needs. Industry and research partners play an integral role in curriculum design and delivery, contributing to the program’s practical applications and offering students invaluable opportunities for research and internships.
3. Well-structured and progressive curriculum: The curriculum is structured to guide students through a solid foundation in the first semesters, followed by more specialized training in marine biotechnology. This progression is enhanced by a focus on practical training, including laboratory work, biological practice, and internships. Students are exposed to real-world applications of their learning, which ensures they are well-prepared for their future careers in marine biotechnology.
4. Customization and flexibility for students: KU offers a high degree of flexibility, allowing students to tailor their education to their career goals. The option to choose electives, specialized tracks such as Blue Economy and Coastal Development, and internships, enables students to design a personalized study path. This flexibility is well received by students, who appreciate the ability to align their studies with their professional aspirations.
5. Strong support for thesis development: The Bachelor’s Theses are well-integrated into the program’s structure, with many topics linked to industry and research partner projects. This ensures that students are engaged in relevant, real-world research. The flexible and student-centered approach to thesis topic selection, combined with personalized mentoring, creates a supportive environment for academic growth and professional development.
6. Commitment to research-led education: KU’s commitment to research-led education is evident in the continuous involvement of faculty, industry, and research partners in curriculum development and student projects. The program ensures that students gain both theoretical and practical expertise, preparing them for professional careers in the blue bioeconomy and further academic study.

7. High degree of student satisfaction: Students, alumni, and social partners have expressed high satisfaction with the program, particularly regarding the opportunities for hands-on experience, the flexibility offered in the curriculum, and the high level of support from faculty. The strong ties with industry partners provide valuable exposure to the professional world, ensuring that students are well-prepared for their future careers.

RECOMMENDATIONS

To address shortcomings

None

For further improvement

1. Clearer communication on support systems: While students value the flexibility and personalized approach in the program, the Self-Evaluation Report (SER) would benefit from a more detailed description of formal support systems or advisory structures available to help students make informed decisions about personalizing their study paths. Clearer guidance regarding these support mechanisms would further enhance students' ability to align their education with their long-term career goals.
2. Continued focus on industry and research integration: Given the success of the program's industry and research collaborations, it would be beneficial to continue expanding and deepening these partnerships. Further integration of research-led teaching and industry-driven projects could ensure that the program remains at the forefront of developments in marine biotechnology, helping students stay ahead of emerging trends.
3. Maintain and strengthen specialized tracks: The specialized tracks within the program (e.g., blue economy and coastal development) are highly valued by students, offering them an opportunity to focus on niche areas within marine biotechnology. To further strengthen this aspect, KU could continue to monitor labor market needs and adjust or expand specialized tracks accordingly to ensure they remain aligned with industry trends.
4. Maintain high student satisfaction: The strong student satisfaction observed in the program should be actively maintained. It will be important to continue providing opportunities for hands-on experience, maintaining faculty-student interactions, and ensuring ongoing support for students in their academic and professional journeys.
5. Documentation of industry outcomes and graduate tracking: Expanding the tracking of graduate outcomes, such as sector-specific data, job satisfaction, and geographical distribution, could help KU gain a more detailed understanding of the program's long-term impact on students' careers. It would also provide a more comprehensive picture of the program's success in meeting labour market needs.

AREA 2: LINKS BETWEEN SCIENTIFIC (OR ARTISTIC) RESEARCH AND HIGHER EDUCATION

2.1.	Higher education integrates the latest developments in scientific (or artistic) research and technology and enables students to develop skills for scientific (or artistic) research

FACTUAL SITUATION

2.1.1. Research within the field of study is at a sufficient level

Research in the field of biology and biotechnology at Klaipeda University (KU) is focused on marine biology and blue biotechnology. During the last evaluation process, KU Marine Research Institute, was evaluated in biological science, receiving a score 3 (good). The description indicated strong research with limited international recognition. In the field of ecological science, the Institute was rated as strong and internationally recognized (score 4 - very good).

There are eight research groups working at KU Marine Research Institute and conducting research in the field of natural sciences, including biology and biotechnology. The specializations in these fields, represented at KU are biological invasions, environmental genetics, benthic ecology, plankton, aquatic biogeochemistry, ecosystem functioning, water resources, fisheries and aquaculture, marine and coastal management, modelling, environmental remote sensing, and water quality. The results of the most advanced research conducted at KU in the field of biology and biotechnology have been published mainly in international journals (e.g. *Frontiers in Marine Science, Marine Pollution Bulletin, Biogeochemistry, Environmental Pollution, Polar Biology, Scientific Reports,* and others.

The international collaboration is well developed. Researchers from KU cooperate with colleagues from many European countries, but also from USA, New Zealand, and China (Taiwan). They are involved in various international projects. This can be exemplified by a large work on biodiversity of Baltic microorganisms, an extensive international work package, published recently in a prestigious journal *FEMS Microbiology Reviews.*

There are about 40 research projects conducted by KU in the fields of biology and biotechnology, funded by national and international agencies. These projects give an annual total budget of between 1.5 and 2.3 million Euro annually. The total annual budget of the Marine Research Institute is at the level of 3-5 million Euro.

2.1.2. Curriculum is linked to the latest developments in science, art, and technology

During the last three years, based on research activities performed in the course of realization of about 40 basic and applied projects in the field of biology and marine biotechnology, the programs of 11 courses were updated. At the same time, topics of laboratory and practical works were expanded to research fields studies during realization of the above mentioned projects, ensuring the implementation of current scientific achievements into the curriculum.

Importantly, students are introduced into the latest achievements in the field of biology and biotechnology during special weekly seminars, where aims and scopes of projects, research objectives and obtained results are presented.

Between 2021 and 2024, there were 27 research projects and 12 applied projects where students could be involved in. The participation of students in these projects was conducted in various forms, from modernization of basic courses for students, through participation in experiments designed to solve specific, small scientific problems, to preparation of BSc projects which were finalized as diploma dissertations. In some cases, students were involved in preparation of research articles and were co-authors of scientific papers.

2.1.3. Opportunities for students to engage in research are consistent with the cycle

There are three major ways by which students are involved in research activities. The first way is participating in the Biology and Marine Biotechnology Course Projects. The second possibility is to

conduct a laboratory practice. Finally, bachelor theses are prepared on the basis of research conducted by students in the course of their participation in research projects.

Between 2021-2024, 35 students (73% of the total number of students) participated in the realization of research projects. This applied to 2nd and 3rd year students of the Biology and Marine Biotechnology program. The number of BSc theses finalized on the basis of participation of students in research projects reached 13. Among them, 8 students were formally employed in these projects. In comparison to the 2017-2021 period, the number of students employed in research projects increased two times in 2021-2024.

ANALYSIS AND CONCLUSION (regarding 2.1.)

The research in the field of Biology and Marine Biotechnology is very well developed at KU. This is mostly due to the establishment of the Marine Research Institute, a University institute focused on research but with providing courses for students, including the biology and marine biotechnology study field. The academic teachers are mostly involved in studies (they spend about 80% of their work on research), however, they also give lectures and practical/laboratory classes, and supervise students involved in research projects. This results in conducting studies in the field of marine biology and biotechnology at a high level, recognized both nationally and internationally. This is reflected in scientific publications which are disseminated mostly in international journals. The teachers are also well recognized internationally, as indicated by their participation in international research projects, as well as in partnership with large scientific programs or other activities, like recent preparation of an article on biodiversity of Baltic microorganisms. The number of currently conducted projects is impressive when compared to the size of the research staff (about 40 projects per 17 teachers/researchers employed as professors or associate professors). Indeed, about 70% of the total budget of the Marine Research Institute comes from research projects. This allows not only to conduct research at a high level, but also to restrict teaching duties and provide individual supervision to virtually every student.

The implementation of current scientific achievements into the curriculum is performed continuously, and programs of courses are regularly updated. Virtually every course is implemented with new research discoveries every year. Importantly, students are encouraged to participate in research projects, and in recent years, over 70% of students were formally involved in studies conducted in the course of the realization of such projects. Considering that students participate in scientific experiments rather at later stages of their bachelor's program, one can estimate that almost all students working on their BSc theses are actively involved in high level research (within national or international research grants), which makes the curriculum exceptionally well developed in this area.

AREA 2: CONCLUSIONS

AREA 2	Unsatisfactory - 1 Does not meet the requirements	Satisfactory - 2 Meets the requirements, but there are substantial shortcomings to be eliminated	Good - 3 Meets the requirements, but there are shortcomings to be eliminated	Very good - 4 Very well nationally and internationally without any shortcomings	Exceptional - 5 Exceptionally well nationally and internationally without any shortcomings
First cycle					X

COMMENDATIONS

1. Especially high level of research, intensive international collaboration and realization of a high number of national and international research projects relative to the number of academic teachers (39 grants per 17 professors in the last three years).
2. Involvement of virtually every student performing his/her BSc thesis in a research project.

RECOMMENDATIONS

To address shortcomings

None

For further improvement

None

AREA 3: STUDENT ADMISSION AND SUPPORT

3.1.	Student selection and admission is in line with the learning outcomes

FACTUAL SITUATION

3.1.1. Student selection and admission criteria and procedures are adequate and transparent

The admission process in Klaipėda university (KU) is in alignment with the state policies which are regulated by the Association of Lithuanian Higher Schools for the Organization of General Admission (LAMA BPO), ensuring compliance with standardized procedures. From 2021–2023, the criteria included adherence to minimum academic indicators approved by the Ministry of Education, Science, and Sports, ensuring only qualified candidates could apply. However, starting in 2024, the criteria transitioned to meet the requirements stipulated in Article 59 of the Law on Science and Studies, indicating stricter legislative alignment. The competitive score structure for admission into programs, such as Biology and Marine Biotechnology, includes a weighted evaluation of core academic subjects, such as Biology, Chemistry, Mathematics, and Lithuanian Language and Literature. This subject-specific approach is adequate for ensuring students are well-prepared for specialized fields of study.The minimum competitive score decreased from 5.4 (2021–2023) to 4.34 (2024), with exceptions for certain majors (e.g., history, geography, biology, or sports achievements), where it dropped to 3.26. This relaxation of criteria increased the applicant pool, as evident from the rise in total applications from 70 in 2022 to 103 in 2024. However, it also resulted in a significant decrease in the average and lowest competitive scores of admitted students (e.g., the average dropped from 8.04 in 2023 to 6.87 in 2024, and the minimum dropped from 5.5 to 3.5). Despite the reduced minimum score, the highest competitive scores remained stable (e.g., 9.43 in 2023 to 9.47 in 2024), indicating that the top-performing students continue to meet high academic standards.

3.1.2. Recognition of foreign qualifications, periods of study, and prior learning (established provisions and procedures)

Foreign study results and qualifications are recognized in accordance with the procedure approved by the KU Senate, which is described in the KU Study Regulations (wording of 2018). This ensures that KU adheres to global academic standards and legal frameworks, enhancing its credibility and fostering international cooperation. The European Credit Transfer System (ECTS) is applied to credits earned abroad, ensuring compatibility with European higher education standards. This facilitates seamless credit transfers for students participating in programs such as Erasmus+ or EU-Conexus Minors. Study results from non-harmonized programs are evaluated on a case-by-case

basis. The recognition process involves comparing the content, objectives, and scope of prior studies with KU's requirements. Up to 50% of study credits can be recognized for competences demonstrated through evidence such as employer recommendations, certificates, and performance evaluations.

ANALYSIS AND CONCLUSION (regarding 3.1.)

The student selection and admission criteria at Klaipėda University are adequate and transparent, adhering to standardized national procedures and ensuring accessibility. However, the reduction in minimum scores in 2024 raises questions about maintaining academic rigor while balancing inclusivity. KU's system for recognizing foreign qualifications and prior learning is robust, transparent, and well-aligned with European and national standards. The application of ECTS and clear evaluation procedures for informal learning reflect a student-focused approach. KU effectively supports academic mobility and lifelong learning, ensuring students can leverage diverse educational experiences.

3.2.	There is an effective student support system enabling students to maximise their learning progress

FACTUAL SITUATION

3.2.1. Opportunities for student academic mobility are ensured

Currently KU has 250 cooperations signed with foreign institutions that would allow for student exchange. Erasmus+ program selection competition for studies and internships are announced twice a year. In certain cases, an additional competition may be announced. Students are informed about the upcoming deadlines and exchange opportunities through social networks, the official university web page and directly by email. Currently KU provides options of long- term and short-term exchange options which provides students with more flexibility when considering mobility options. There was a drastic increase in the number of incoming students from 1 student in 2022 and 2023 reaching 18 students in 2024. Showing that the university and program is improving its publicity. The number of outgoing students in the analysed time period remains relatively stable in 2022 reaching 9 students going abroad for exchange in 2023 reaching 12 students and in 2024 - 8 students. Most outgoing students participated in studies, with a smaller number engaging in internships. KU provides a robust and expanding framework for student mobility under the Erasmus+ and EU-Conexus programs. Efforts to align agreements with study programs, diverse mobility options (long-term, short-term, blended), and active promotion contribute to increased participation. However, outgoing student numbers aimed at practises remain low, suggesting a need for initiatives to increase mobility.

3.2.2. Academic, financial, social, psychological, and personal support provided to students is relevant, adequate, and effective

There is a strong sense of community and partnership in the university. Klaipėda University provides a comprehensive support system that addresses academic, financial, social, personal, and psychological needs. These measures are tailored to ensure student well-being, inclusivity, and active participation in the academic community. The diverse range of scholarships and services reflects the university's commitment to fostering student success and development. A recent development are seminars on further career development hosted for students to help them make informed decisions on where they want to take their education and what they want to do with their careers. Guidance on study-related matters, such as admission, program selection, individual study

plans, and financial or academic issues is also provided for students. Support is extended to both local and international students, including Erasmus+ participants. Additionally KU provides social support for students who are in difficult financial circumstances with additional psychological counselling services available. KU encourages and supports participation in conferences, seminars, and other academic or cultural events. Students note that the faculty has an open-door policy which allows students to reach out and receive near immediate assistance on demand which harbors an overall positive and supportive environment for the students enrolled in the program.

3.2.3. Higher education information and student counselling are sufficient

At the beginning of each year KU hosts introductory sessions and tours for the first year bachelor students, covering essential aspects like the study process, internships, laboratories, and safety instructions. AFter which students are introduced to the main universities communication channels and are encouraged to reach out if they are in need of any assistance. Students have access to counselling from program leaders, teachers, and thesis supervisors, with flexible modes of communication (in-person, email, Moodle, and virtual platforms). Every once in a while the university hosts events where students are exposed to career opportunities through practices, alumni meetings, and interactions with potential employers during thesis defences and seminars which allows students to make informed decisions based on their career needs. This is further facilitated by the fact that KU allows for individual study schedules when necessary, demonstrating flexibility in accommodating diverse student needs.

ANALYSIS AND CONCLUSION (regarding 3.2.)

Klaipėda University provides relevant, adequate, and effective academic, financial, social, psychological, and personal support to its students. Its well-structured academic mobility programs and effective use of Erasmus+ agreements ensure a variety of international learning opportunities. Furthermore, the university's counselling and information dissemination mechanisms are comprehensive and sufficient, catering to academic, career, and personal development needs.

The university’s ongoing efforts in ensuring inclusivity, flexibility, and accessibility across its services highlight its commitment to fostering a supportive and enriching environment for students. While the current framework is highly effective, continued monitoring and adaptation to student feedback will help sustain and enhance these services.

AREA 3: CONCLUSIONS

AREA 3	Unsatisfactory - 1 Does not meet the requirements	Satisfactory - 2 Meets the requirements, but there are substantial shortcomings to be eliminated	Good - 3 Meets the requirements, but there are shortcomings to be eliminated	Very good - 4 Very well nationally and internationally without any shortcomings	Exceptional - 5 Exceptionally well nationally and internationally without any shortcomings
First cycle				X	

COMMENDATIONS

1. Most of the student theses are based on scientific projects.
2. A lot of hands-on experience during the study process.

RECOMMENDATIONS

To address shortcomings

None

For further improvement

1. Increasing the frequency of workshops, webinars, and Q&A sessions focused on academic and psychological support, particularly targeted at new and international students.
2. Offer additional resources, such as seminars and workshops, to guide students on how to apply the knowledge gained from their studies to launch their own businesses or acquire complementary skills for interdisciplinary expertise.

AREA 4: TEACHING AND LEARNING, STUDENT ASSESSMENT, AND GRADUATE EMPLOYMENT

4.1.	Students are prepared for independent professional activity

FACTUAL SITUATION

4.1.1. Teaching and learning address the needs of students and enable them to achieve intended learning outcomes

The SER emphasizes that the Biology and Marine Biotechnology program at Klaipeda University is delivered in a full-time format using active teaching methods such as case analysis, group discussions, and problem-based learning to achieve the intended learning outcomes. Each lecturer provides an independent study plan and offers ongoing consultations. Students develop independent learning skills through tasks such as information searching, analysing scholarly articles, assignments, and course projects. Practical skills are honed through laboratory and specialized practices in biology in which students are expected to actively participate. Teamwork skills are encouraged through group tasks, presentations, and seminars, with students selecting topics in consultation with lecturers. After completing the course, students can complete a second- cycle studies or continue on to a Master's program in Sustainable Water Ecosystem Management at the KU. The SER would benefit from more detailed information on how teaching methods meet the different needs of students (e.g., learning styles, academic backgrounds), and how student feedback is incorporated into improving teaching methods and learning outcomes. Additionally, the SER would be strengthened by clarifying how participation in practical activities is assessed, how individual support is provided to students who are struggling to meet the learning outcomes and how group work is assessed, including whether students can provide feedback on this process.

4.1.2. Access to higher education for socially vulnerable groups and students with individual needs is ensured.

The SER highlights Klaipeda University's commitment to creating an inclusive environment for students from diverse backgrounds, including socially vulnerable groups and those with special needs. The university ensures access to education for students with mobility, visual, or hearing impairments by providing special equipment such as elevators and assistive technologies in the library, including text-to-audio converters and screen magnifiers. These facilities are available in the University's key buildings. In addition, the University provides remote consultations for students with special needs and ensures accessibility through the Virtual Learning Environment (VLE). The website is also suitable for individuals with visual impairments. Psychological and pastoral support services are available for students with psychological problems. Potential gaps in the SER include further details on how effectively these accessibility measures are communicated to potential students with special needs and how often they are reviewed or updated to meet evolving needs.

There is also a lack of student feedback on the usability of the assistive technologies and services provided. It would be useful to investigate whether the academic community feels sufficiently trained to support students with special needs and how the university tracks the success of these measures.

ANALYSIS AND CONCLUSION (regarding 4.1.)

Ad. 4.1.1. As outlined in the Self-Evaluation Report (SER), the program employs active teaching methods, including case analysis, group discussions, and problem-based learning. These methods aim to enhance students' independent learning, teamwork skills, and practical expertise, with a particular focus on laboratory and specialized practices. The program also offers opportunities for students to develop independent learning skills through tasks such as information searching, scholarly article analysis, and course projects. Teamwork is emphasized through group tasks, presentations, and seminars, allowing students to select topics in consultation with lecturers. Furthermore, the program supports students in their transition to second-cycle studies or the Master's program in Sustainable Water Ecosystem Management at KU. The flexibility of the program is further enhanced by various support systems in place for students. The faculty's open-door policy, as well as access to the student union and program creators, ensures that students can easily seek help when needed. Additionally, students are informed about available resources such as scholarships, Erasmus opportunities, and additional learning support through regular meetings. This open and supportive atmosphere facilitates students' engagement with the academic program and helps them overcome challenges they may face in achieving the learning outcomes. While the SER could have provided more specific information on how individual consultations or additional learning resources are structured, it is clear from the conversations with stakeholders that the faculty and university provide a well-rounded support system to meet diverse student needs. In terms of feedback and assessment, students receive ongoing consultations from lecturers, and opportunities for feedback on teaching methods and group work processes are likely integrated into the program, ensuring continuous improvement. Overall, the program is well-equipped to accommodate different learning styles and provide the necessary support for students to achieve their academic goals.

Ad. 4.1.2. Klaipeda University demonstrates a strong commitment to ensuring access to education for socially vulnerable groups and students with special needs, as outlined in the SER. The university provides a range of facilities and resources to support students with mobility, visual, or hearing impairments. In addition, remote consultations and the accessibility of the Virtual Learning Environment (VLE) (which the members of the Panel were also able to experience in discussions with various stakeholders) ensure that students with special needs can participate fully in the academic program. Faculty and staff are well-prepared to support students with special needs, as evidenced by the workshops organized by the university to enhance didactic skills. These workshops, which focus on teaching methods and accommodations for students with special needs, have strengthened faculty members' ability to effectively support these students. The university has made notable progress in organizing these training opportunities, improving communication among teaching staff, and fostering a collaborative environment for discussing best practices. International participation in didactic courses has also contributed to expanding faculty expertise in this area. While the SER outlines the available resources and support systems, student feedback on the usability of assistive technologies and services would offer valuable insight into the effectiveness of these measures. Ensuring that the academic community continues to receive training and support for accommodating students with special needs will further enhance the university's inclusive environment.

4.2.	There is an effective and transparent system for student assessment, progress monitoring, and assuring academic integrity

FACTUAL SITUATION

4.2.1. Monitoring of learning progress and feedback to students to promote self-assessment and learning progress planning is systematic

The SER comprises two sections (4.3 and 4.4) which overlap in content, so both are considered together to ensure clarity and consistency in shaping the factual information for external evaluation. Klaipeda University monitors student progress at several levels: subject, course, and program. At the subject level, lecturers assess student progress through cumulative assessments and provide individual feedback to make improvements. The Moodle platform is used for continuous monitoring and provides feedback on assignments completed in class and independent tasks. At course level, study administration monitors student progress, particularly for failed exams, offering guidance on retake opportunities. At the program level, the JTI Study Organization Group evaluates overall performance, including practices, thesis defenses, and academic success rates, and addresses academic challenges by offering solutions such as individual study plans or study breaks in special circumstances. The university attaches great importance to student feedback, which is collected and analyzed in anonymous surveys to improve study programs, teaching methods and study quality. However, there is a lack of detailed information on how feedback influences the design of study programs and courses over time and whether students are fully aware of the feedback mechanisms. In addition, a better insight into how Moodle feedback is used for long-term improvements and how student' self-assessments are integrated could be valuable. Feedback to students is provided through both formal and informal assessments, delivered individually or in groups, verbally (e.g., in face-to-face meetings) and in written form (e.g., via email or Moodle). The feedback first highlights strengths, followed by areas for improvement and suggestions for development. Students are informed in advance about the assessment criteria in order to create clarity. The Moodle platform serves as a central tool for feedback, where students can access comments, forums and work-specific feedback. Lecturers guide further study planning and provide tips for improvement. Students are encouraged to reflect on their progress and ask about the assessment criteria to encourage self-assessment. However, there is a need for more specific examples of feedback practices for different types of assessment (e.g., group projects, presentations) and how feedback is applied consistently across different courses and by different lecturers. In addition, an explanation of how student feedback is used to improve future assessments and courses would be helpful.

4.2.2. Graduate employability and career are monitored

According to the SER, Klaipeda University tracks the employability of graduates and their careers through surveys conducted two years after graduation. Alumni are engaged through various channels, such as career events, social networks, and alumni groups. From 2024, alumni have the opportunity to meet with students and give them insights into their careers. Employers will be consulted to assess graduates' skills and identify skills gaps. Graduates will be interviewed about their employment status and the skills they acquired during their studies. Between 2021 and 2024, a significant proportion of graduates continued their studies (e.g., master's programs at various universities), while others found employment in fields related to their qualifications, such as laboratory assistants, biology teachers and technologists. Graduates generally report that their biology studies have contributed to their professional development, particularly in terms of general knowledge, soft skills and specialized skills. However, some alumni identified gaps in certain areas of knowledge, such as taxonomic knowledge and chemistry, which led to adjustments in the curriculum (e.g., the introduction of general chemistry). Graduates also expressed a desire for improved skills in scientific writing, CV writing and motivation writing. Some graduates working in educational settings, indicated that additional pedagogical training would be beneficial, which led to

a professional study program in pedagogy being offered to biology graduates wishing to teach in schools. The SER would benefit from including information on the long-term impact of graduate feedback on curriculum or programs of study, details on how employer feedback influences curriculum and skill development, insights on how specific career events or alumni gatherings influence students' career choices, and clarifications on how the surveys are structured and how representative the sample size is (e.g., 14 out of 29 graduates responded), information on the overall success rate of graduates in finding relevant employment or continuing their education.

4.2.3. Policies to ensure academic integrity, tolerance, and non-discrimination are implemented

According to SER, Klaipeda University enforces academic integrity, tolerance, and non-discrimination through its Code of Academic Ethics, which is aligned with university policies. Relations between lecturers and students are characterized by transparency and academic cooperation. Violations, such as discrimination or unfair academic evaluations, are prohibited. Lecturers are expected to ensure fairness in assessment and avoid conflicts of interest by respecting their professional boundaries. They are required to report any cases of academic dishonesty to the ethics committee, minimize opportunities for dishonesty, and protect student data. Students must sign a contract agreeing to comply with academic discipline and ethical standards. They must follow the KU guidelines for independent academic writing, ensuring proper citation and adhere to the principles of academic integrity. Violations, such as plagiarism, are monitored using the Lithuanian Academic Electronic Library system and the Oxsico plagiarism protection program. In 2024, KU introduced guidelines on AI use that outline ethical AI practices for students and staff and emphasize responsible AI use, citation practices and privacy protection in academic contexts. Students are trained in these guidelines to ensure ethical AI use in their work. No violations of academic integrity, tolerance or non-discrimination have been reported in the last three academic years. SER would benefit from specific examples or cases where academic integrity, tolerance, and non-discrimination policies have been enforced or challenged; details on the effectiveness of anti-plagiarism tools (e.g., Oxsico) in detecting violations and how often students or lecturers use these tools; information on how the university ensures student and staff compliance with AI use policies and how this is monitored; data or insights on how students and staff are educated about ethical AI use and academic integrity beyond the induction phase.

4.2.4. Procedures for submitting and processing appeals and complaints are effective

Klaipeda University (KU) has established clear procedures for students to appeal assessment results, which are outlined in the KU's Study Regulations and are publicly available on the Student Union website. Students who disagree with the assessment of an examination or a performance record can submit an appeal within 2-3 days, which will be reviewed by the institute director. They will receive a response within 3 working days. Appeals are possible in case of dissatisfaction with the assessment of coursework, procedural violations during the thesis defence or problems with the final thesis defence. However, appeals concerning the content of the final thesis assessment are not accepted as the decisions of the Qualification Committee are final. If a student feels that their appeal has not been satisfactorily resolved, they may appeal to the University Administration and the Student Dispute Resolution Committee, as determined by the Senate. Despite these procedures, no appeals or complaints have been filed in the last three years. SER would benefit from details on how the appeal process is communicated to students, particularly to ensure that all students are fully aware of their rights, insight into the transparency of the appeal process and how students can be confident that their complaints will be handled fairly, and clarification on how often the Student Dispute Resolution Committee is involved and what types of complaints or appeals it typically handles.

ANALYSIS AND CONCLUSION (regarding 4.2.)

Ad. 4.2.1. The monitoring of student study progress and feedback mechanisms at Klaipeda University is robust, with various levels of oversight and frequent student involvement. As described in the SER, students' progress is monitored at the subject, course, and program levels through a combination of cumulative assessments, individual feedback, and surveys. Moodle is used extensively for continuous feedback on assignments, and formal academic administrators track issues such as failed exams, offering retake opportunities. However, feedback provided in the SER is somewhat general, and the insights gleaned from discussions with students and faculty during the site visit provide a clearer picture of how these processes are actively implemented and how they lead to tangible improvements. From the responses gathered during the visit, it is clear that the university fosters a close and dynamic relationship between students and faculty, especially due to the small size of the program. Students appreciate the immediate and informal feedback provided by lecturers, often through direct communication during or after classes. This ensures that concerns are addressed quickly, and improvements to teaching or course organization are implemented promptly. Faculty members emphasize the importance of student feedback and actively encourage students to voice their opinions, which helps ensure that teaching methods and study structures remain adaptable. Students reported feeling comfortable expressing their views, and they noted that their feedback frequently results in adjustments to course content or teaching styles. For instance, courses have been separated based on students' prior knowledge to ensure that they are more effectively tailored to their backgrounds. The use of surveys is another key component of the feedback system. Students regularly complete standardized questionnaires, providing anonymous feedback on teaching methods, course content, and faculty performance. This data is then used to make adjustments, such as replacing lecturers if problems arise or modifying teaching techniques when students express dissatisfaction. The responsiveness of faculty and the ability to make swift changes were highlighted by students as a positive aspect of their experience. Additionally, the university offers multiple channels for feedback, including phone and email contacts for professors, ensuring that students can receive immediate help if needed. In terms of assessment types, feedback practices appear to be consistent and varied. Students appreciate the comprehensive feedback they receive on both individual and group assignments, exams, and presentations. Faculty make a concerted effort to ensure that feedback is constructive, emphasizing strengths before outlining areas for improvement and providing suggestions for further development. The university’s commitment to fostering a culture of self-assessment is reflected in the encouragement for students to reflect on their progress and engage in discussions about assessment criteria. Overall, the monitoring of student progress and the feedback process at Klaipeda University is systematic and effective.

Ad. 4.2.2. Klaipeda University demonstrates a strong commitment to ensuring the employability of its graduates and tracks their career progression through surveys conducted two years after graduation. According to the SER, alumni are engaged through various channels, including career events, social networks, and alumni groups. The university also plans to introduce opportunities for alumni to meet with students and share career insights, and to consult employers on skills gaps and employment outcomes. The employability of graduates appears to be strong, with a significant proportion continuing their studies in master's programs or finding employment in related fields such as laboratory assistants, biology teachers, and technologists. Feedback from alumni has already led to curriculum adjustments, particularly in areas such as chemistry and scientific writing, addressing skills gaps identified by graduates. From the discussions with stakeholders during the site visit, it became evident that the program is closely aligned with the regional and national demand for marine biotechnology specialists. Several initiatives ensure that students gain relevant experience for the blue bioeconomy sector. For example, students are encouraged to undertake summer practices at

various institutions, where they present their results and receive feedback from industry professionals. This hands-on experience is highly valued, as it provides students with a deeper understanding of the practical applications of their studies. The program also has strong links with social and industry partners, such as environmental protection agencies and business enterprises, which offer both formal and informal collaboration opportunities. The involvement of these partners in course design and practical training ensures that the curriculum is aligned with industry needs and the evolving demands of the blue bioeconomy. Moreover, the program is unique in Lithuania, as it is the only one focused on marine biology and biotechnology, specifically addressing blue bioeconomy topics. This distinctive feature enhances its appeal and relevance to the national workforce. Graduates find employment in key sectors such as government agencies (e.g., nature parks and protected territories), museums, and secondary schools, where they may pursue additional pedagogical training to become teachers. The employment rate for graduates is robust, with approximately 50% continuing their studies at the master's level and the other half entering the job market. The university's strong focus on research, in addition to its specialized curriculum, provides students with the opportunity to work in well-established fields, particularly in marine technology through EU collaborations. In conclusion, Klaipeda University's Biology and Marine Biotechnology program offers strong career prospects for its graduates. The alignment with industry needs, particularly in the blue bioeconomy sector, and the extensive practical training opportunities, ensure that graduates are well-prepared for the job market. The program's collaboration with employers and alumni feedback also plays a crucial role in continuously improving its curriculum to meet the evolving demands of the workforce. However, further clarity on the structure of alumni surveys and the representativeness of sample sizes would enhance the understanding of long-term graduate career tracking.

Ad. 4.2.3. Klaipeda University upholds strong policies to ensure academic integrity, tolerance, and non-discrimination, as outlined in the SER. The university enforces these principles through its Code of Academic Ethics, which promotes transparency, fairness, and cooperation between students and lecturers. Violations such as discrimination, unfair evaluations, or academic dishonesty, including plagiarism, are prohibited and monitored using tools like the Lithuanian Academic Electronic Library and the Oxsico plagiarism detection program. The university also ensures that students adhere to ethical standards through signed agreements and guidelines on academic writing. Recently, the introduction of AI use guidelines demonstrates the university's commitment to adapting to new challenges, emphasizing responsible and ethical AI use in academic work. However, the SER would benefit from specific examples of how these policies are enforced or challenged in practice, as well as more details on the effectiveness of anti-plagiarism tools and how AI use is monitored. Discussions with stakeholders during the visit highlighted the university's active approach to educating students on ethical AI practices. Students are introduced to AI as a tool that can be used responsibly, with training on how to apply it constructively in academic settings. For instance, AI tools are used in projects such as recognizing plankton species using AI-based technologies. The university allows students to use AI tools, but only under certain conditions and with transparency about their use, ensuring ethical practices. While the university provides guidelines, it was not entirely clear how violations of these guidelines are tracked, nor how AI-related infractions might be handled if they occur. It would be beneficial for the university to develop more concrete mechanisms for monitoring adherence to its AI use policies, including possible follow-up actions in cases of violations. Regarding academic integrity and discrimination, the university maintains a supportive and inclusive environment. Students are informed of their rights and responsibilities, with a focus on creating a positive and collaborative atmosphere. The university offers opportunities for anonymous reporting of any academic integrity violations or incidents of discrimination, although the specifics of these mechanisms were not fully explored during the visit. It was clear, however, that students appreciate the inclusive atmosphere, with many praising the approachable staff and the opportunities

for international mobility and hands-on learning experiences. The small student community and strong integration process, supported by both faculty and the student union, were seen as key factors in fostering a positive and open environment. In conclusion, Klaipeda University has implemented robust policies to promote academic integrity, tolerance, and non-discrimination. However, more transparency regarding the enforcement of these policies, particularly in relation to AI use and the reporting of violations, would enhance the university's approach. Furthermore, additional information on how these policies are communicated to students and how adherence is monitored would strengthen the university's efforts in maintaining a fair and inclusive academic environment.

Ad. 4.2.4. Klaipeda University (KU) has established clear and accessible procedures for submitting appeals and complaints regarding the study process, as described in the SER. The university ensures that students are aware of their rights to appeal assessment results through publicly available regulations and guidelines. If students disagree with an assessment, they can submit an appeal, which will be reviewed by the institute director, with a response provided within three working days. While the university has a multi-level appeal system, which includes the possibility of escalating cases to the University Administration or the Student Dispute Resolution Committee, no appeals or complaints have been filed in the last three years, indicating that the processes may be functioning effectively, or alternatively, that students feel confident in the fairness of the assessment process. From the discussions with stakeholders during the site visit, it became evident that the absence of appeals and complaints could be attributed to the overall transparency and openness within the university's academic environment. The frequent informal feedback mechanisms, such as direct communication between students and lecturers, as well as the university's open-door policy, likely foster a sense of trust and cooperation, minimizing the need for formal complaints or appeals. Moreover, the active involvement of the student union and the university's commitment to student well-being and academic support likely ensures that students feel heard and their concerns addressed before they escalate to formal procedures. However, while the absence of appeals is a positive indicator of student satisfaction, the SER would benefit from more clarity regarding how the appeal process is communicated to students, particularly to ensure that all students, including international students, are fully informed about their rights and the steps involved in filing an appeal. In conclusion, Klaipeda University appears to have effective procedures in place for handling appeals and complaints within the study process, supported by a culture of openness and communication. However, further clarity on how these processes are communicated to students would enhance the understanding of the appeal system's transparency and fairness. The absence of formal complaints over the past three years suggests that students are confident in the system, but additional information on the procedural aspects would provide a more comprehensive evaluation.

AREA 4: CONCLUSIONS

AREA 4	Unsatisfactory - 1 Does not meet the requirements	Satisfactory - 2 Meets the requirements, but there are substantial shortcomings to be eliminated	Good - 3 Meets the requirements, but there are shortcomings to be eliminated	Very good - 4 Very well nationally and internationally without any shortcomings	Exceptional - 5 Exceptionally well nationally and internationally without any shortcomings
First cycle				X	

COMMENDATIONS

1. Active teaching methods and student engagement: Klaipeda University (KU) effectively integrates active teaching methods such as case analysis, group discussions, and problem-

based learning into its curriculum. These methods foster independent learning, teamwork, and practical expertise, enhancing students' engagement and ensuring that they are well-prepared for real-world applications. The focus on laboratory and specialized practices is particularly beneficial in developing practical skills.

2. Comprehensive student support systems: KU provides a strong support system for students, including access to faculty through an open-door policy, resources like the student union, and regular meetings to inform students about scholarships, Erasmus opportunities, and learning support. The faculty's approachability and commitment to supporting students' academic and personal growth contribute to an inclusive and supportive learning environment.
3. Strong focus on graduate employability: The university's proactive approach to enhancing graduate employability through internships, alumni feedback, and close ties with industry partners ensures that students gain relevant experience and skills. The high rate of employment or continued study among graduates speaks to the program's alignment with industry needs, particularly in the blue bioeconomy sector.
4. Feedback mechanisms and continuous improvement: KU's robust feedback system - ranging from direct communication between students and faculty to the use of surveys and academic assessments - ensures that students' voices are heard and incorporated into course improvements. This feedback culture, combined with swift adjustments to teaching methods and content, contributes to an effective learning environment.

RECOMMENDATIONS

To address shortcomings

None

For further improvement

1. Further strengthening of faculty training on inclusive teaching: While the workshops for faculty members on supporting students with special needs are commendable, KU could further expand faculty training to ensure that all teaching staff are fully equipped to accommodate diverse learning needs, particularly in more specialized courses. This could include offering additional workshops on inclusive teaching strategies or the use of assistive technologies.
2. Expand opportunities for alumni-student interaction: The university's plans to introduce opportunities for alumni to meet with current students are a positive step. To further enhance this, KU could consider formalizing mentorship programs, where alumni can provide guidance on career development, industry trends, and academic choices. This would create more structured opportunities for current students to benefit from alumni expertise.
3. Clarify communication of appeal processes to international students: While the university's appeal processes are well-established and effective, more clarity is needed on how these procedures are communicated to students, particularly international students. This could include providing written guidelines in multiple languages or offering dedicated support for international students to ensure that they fully understand their rights and how to navigate the appeal system if necessary.
4. Monitor effectiveness of assistive technologies: While the university has made strides in supporting students with special needs, collecting and analyzing student feedback specifically on the usability and effectiveness of assistive technologies would provide valuable insights. Regular assessments of how well these technologies meet students' needs will allow the university to make informed improvements.

AREA 5: TEACHING STAFF

5.1.	Teaching staff is adequate to achieve learning outcomes

FACTUAL SITUATION

5.1.1. The number, qualification, and competence (scientific, didactic, professional) of teaching staff is sufficient to achieve learning outcomes

There are 36 academic teachers working in the Biology and Marine Biotechnology study program. Among them, 17 are professors and associate professors permanently employed at KU. The rest are teachers from other Lithuanian or foreign academic institutions. The publication records of the academic teachers are at good international levels, with articles published in recognized, international journals.

Currently, there are 57 students involved in the Biology and Marine Biotechnology study program. Thus, the ratio of students to academic teachers is about 1.6:1. This is one of the lowest ratios at European Universities, and allows individual works of teachers with students, which is especially important at the stage of preparation of diploma theses. The number of teachers allows researchers to teach only subjects which are directly related to their scientific competence. Moreover, the teaching duties of academic teachers do not exceed 20% of the total workload. This gives a good balance between teaching and research activities.

Among all teachers involved in giving lectures and conducting practical courses, 42% are employed at professor positions. All persons who supervise laboratory works and other practical classes have at least MSc degree. Practitioners from social partners and business enterprises are involved in the teaching process. They give guest lectures and help in conducting works for bachelor's theses.

ANALYSIS AND CONCLUSION (regarding 5.1.)

The teaching staff consists of 17 researchers permanently employed at KU as professors and associate professors, and 19 other teachers. Their qualifications are high, as reflected by almost 40 research grants conducted in the Marine Research Institute, and high level publications in international journals by all professors and associate professors. The teaching workload of academic teachers is relatively low (about 20% of total) which allows them to focus on research and individual supervising the students. In fact, the teachers to students ratio is about 1:1.6, which facilitates conducting lectures, seminars and practical classes under excellent conditions, in the ”master-student relationship”, as well as involving students in research projects where they conduct experiments, analyse results, and make conclusions together with their direct scientific supervisors.

5.2.	Teaching staff is ensured opportunities to develop competences, and they are periodically evaluated

FACTUAL SITUATION

5.2.1. Opportunities for academic mobility of teaching staff are ensured

KU is involved in about 250 cooperation agreements within the Erasmus+ program and other international programmes. Academic teachers are encouraged to conduct internships at foreign universities within the Erasmus+ program. A science and study promotion fund has been established to increase the international mobility of teachers and researchers. In the 2021-2024, almost 90% of

the teachers employed at KU permanent positions and involved in the Biology and Marine Biotechnology program visited other academic institutions, conducting research and/or teaching activities. In the same period, 11 teachers and researchers from other Lithuanian and foreign institutions were involved in teaching biology and marine biotechnology at KU. Among them, there were academic teachers from Croatia, Portugal, Japan, Netherlands, and Canada.

5.2.2. Opportunities for the development of the teaching staff are ensured

From 2022, every academic teacher employed at the KU is obliged to improve his/her qualifications. Teachers are encouraged to improve and develop various competences including scientific, pedagogical or general (digital, communication, intercultural, managerial) ones. Financial support is offered by KU to teachers involved in courses or internships related to gaining or improving their competencies.

During the 2021-2024 period, all academic teachers employed permanently at KU and involved in the realization of the study program improved their research qualifications, and about 80% of them improved their didactic competences. Those were achieved mainly by participating in various programs, courses, training, and other activities.

ANALYSIS AND CONCLUSION (regarding 5.2.)

The mobility of the academic teachers is high. This arises from both the didactic and research programs (Erasmus+ and research grants, respectively). It is worth noting that almost 90% of teachers were involved in academic mobility activities during the last four years. This makes one of the highest proportion of the teaching staff conducting research and teaching programmes in the course of visits in other academic institutions. Therefore, there are excellent opportunities to improve the quality of teaching and research skills of the teachers during the academic mobility events.

According to recently introduced regulations at KU, every academic teacher is obliged to improve his/her competences and skills. Importantly, teachers receive financial support to fulfil this requirement. The effects of such a program are excellent, as during the last four years, all teachers improved their research qualifications, and about 80% of teachers improved their teaching skills. Therefore, the development of the teaching staff is ensured, and realized effectively.

AREA 5: CONCLUSIONS

AREA 5	Unsatisfactory - 1 Does not meet the requirements	Satisfactory - 2 Meets the requirements, but there are substantial shortcomings to be eliminated	Good - 3 Meets the requirements, but there are shortcomings to be eliminated	Very good - 4 Very well nationally and internationally without any shortcomings	Exceptional - 5 Exceptionally well nationally and internationally without any shortcomings
First cycle					X

COMMENDATIONS

1. Especially effective activities in receiving and conducting research projects (both national and international) by the teaching staff.
2. Individual supervision of virtually every student by academic teachers, facilitated by an especially low ratio of the number of students to teachers (1.6 : 1).
3. Especially intensive academic mobility of the teaching staff (90% of teachers involved in academic mobility activities).
4. Extremely effective system for improving qualifications of teachers (100% of them improved their research skills and 80% of them improved their teaching skills during last years).

RECOMMENDATIONS

To address shortcomings

None

For further improvement

None

AREA 6: LEARNING FACILITIES AND RESOURCES

6.1.	Facilities, informational and financial resources are sufficient and enable achieving learning outcomes

FACTUAL SITUATION

6.1.1. Facilities, informational and financial resources are adequate and sufficient for an effective learning process

Klaipėda University's Marine Research Institute (MRI) is a leading institution in marine science in the Baltic Sea region. The MRI benefits from advanced research infrastructure developed through the Maritime Valley Programme, with a state-of-the-art building and laboratories opened in 2018. The integration of the Fisheries Laboratory in Kopgalis has further expanded its facilities, offering modern infrastructure for marine biology, fisheries, and aquaculture studies. The SER highlights that lecture rooms at MRI and affiliated faculties are well-equipped with modern teaching tools and cater to diverse class sizes. Laboratory work is a critical component of the curriculum, conducted in specialised facilities like the Coastal Environment and Biogeochemistry Laboratory and the Fisheries and Aquaculture Laboratory. These units offer cutting-edge equipment, from molecular biology tools to aquaculture systems.

Students gain hands-on experience through access to experimental systems, aquaponics systems, and recirculating aquaculture systems. Additionally, fieldwork is supported by the university's fleet, and the availability of marine and freshwater ecosystems for practical training. Collaborations with institutions such as the Lithuanian Sea Museum further enhance opportunities for internships and research. The university's library system provides 24/7 remote access to comprehensive informational resources, including major scientific databases and journals, e-books, journals, and specialised software, ensuring they can carry out research effectively.

The on-site visit revealed that, although MRI has access to classrooms and auditoria across the university campus, there is a clear preference for conducting classes within their own in-house facilities whenever possible. This is feasible with the current number of students (±20 students/year).

6.1.2. There is continuous planning for and upgrading of resources.

The SER highlights that MRI continually upgrades its infrastructure and equipment through international and national research projects. The Fisheries and Aquaculture Laboratory has seen significant development, with new facilities and laboratory spaces added between 2022-2024. Plans for further development focus on establishing a Blue Bioeconomy Competence Centre, aligning with regional specialisation strategies. Consumables and reagents for laboratory work are procured centrally each semester, ensuring the availability of materials for coursework and thesis projects. Library resources are updated in collaboration with faculty, responding to evolving programme needs. Strategic investments have enhanced teaching spaces, such as the renovation of unused buildings to create new laboratories and classrooms. Distance learning facilities are in place, with MRI offering online teaching through platforms like Moodle and Zoom. Future developments include expanding marine biotechnology capabilities and acquiring specific experimental equipment, contributing to ongoing innovation in research and education.

The on-site visit reinforced the positive impression that the MRI is well-positioned for stable financing over the next 10-15 years, ensuring continued investment in facilities and resources for both research and teaching. This stability is largely supported by the Maritime Valley Programme. Additionally, MRI's strong track record in securing research funding enhances financial support for teaching activities, as educational initiatives are frequently integrated with and contribute to ongoing research projects. This synergy between research and education further strengthens the institute's long-term sustainability and growth.

ANALYSIS AND CONCLUSION (regarding 6.1.)

The facilities, informational, and financial resources at MRI are fully meeting the needs of the Biology and Marine Biotechnology programme. The MRI benefits from substantial investments in infrastructure through the Maritime Valley Programme, resulting in modern, well-equipped laboratories and lecture spaces. The recent expansion of facilities, such as the Fisheries Laboratory in Kopgalis and specialised laboratories like the Coastal Environment and Biogeochemistry Laboratory, provides students with access to state-of-the-art tools and technologies essential for practical learning and research.

Students gain significant hands-on experience through experimental and aquaponics systems, as well as access to the university's fleet and nearby ecosystems, reinforcing theoretical knowledge with practical application. Collaborations with external partners, such as the Lithuanian Sea Museum, further enrich the learning process through internships and joint projects.

The continuous planning for resource upgrades, highlighted by recent developments in the Fisheries and Aquaculture Laboratory and future plans for a Blue Bioeconomy Competence Centre, reflects a proactive approach to maintaining and enhancing the learning environment. The institutes's strong record of securing external funding ensures stable financial support for both teaching and research over the next decade. This integration of educational and research activities enhances the overall quality of the programme, demonstrating that the aim of providing adequate and sufficient resources for an effective learning process is fully met.

The MRI demonstrates a high level of resource adequacy to support the Biology and Marine Biotechnology programme effectively. Modern teaching and laboratory facilities, strong financial stability, and continuous investments ensure that students have access to the necessary tools,

infrastructure, and learning environments. The integration of external partnerships, hands-on training systems, and access to diverse ecosystems reflects best practices in higher education for marine sciences. MRI's ongoing commitment to upgrading resources and aligning them with industry trends and research priorities confirms that the programme's resource needs are fully addressed and consistently enhanced.

Conclusion:

Klaipėda University's Marine Research Institute demonstrates a high level of resource adequacy to support the Biology and Marine Biotechnology programme effectively. Modern teaching and laboratory facilities, strong financial stability, and continuous investments ensure that students have access to the necessary tools, infrastructure, and learning environments. The integration of external partnerships, hands-on training systems, and access to diverse ecosystems reflects best practices in higher education for marine sciences. MRI's ongoing commitment to upgrading resources and aligning them with industry trends and research priorities confirms that the programme's resource needs are fully addressed and consistently enhanced.

AREA 6: CONCLUSIONS

AREA 6	Unsatisfactory - 1 Does not meet the requirements	Satisfactory - 2 Meets the requirements, but there are substantial shortcomings to be eliminated	Good - 3 Meets the requirements, but there are shortcomings to be eliminated	Very good - 4 Very well nationally and internationally without any shortcomings	Exceptional - 5 Exceptionally well nationally and internationally without any shortcomings
First cycle				X	

COMMENDATIONS

1. The MRI's state-of-the-art laboratories and infrastructure provide students with extensive hands-on experience and access to cutting-edge technology, enriching the learning process.
2. The collaboration with external partners enriches the learning experience by offering internships, fieldwork, and research opportunities. This strengthens the employability of graduates and aligns the programme with industry needs.

RECOMMENDATIONS

To address shortcomings

None

For further improvement

1. Additional investment in emerging marine biotechnology equipment and specialised experimental tools would further enhance the programme's competitiveness and the institute's research capacity.
2. While the benefits of maintaining small student cohorts allow for high-quality, in-house teaching and increased research capacity for faculty, exploring a moderate increase in student intake could address stakeholder concerns regarding workforce needs. Expanding student numbers slightly, without compromising teaching quality, may justify further

investment in research facilities and laboratory capacity. This could enhance the programme's impact on society while preserving the balance between teaching and research.

AREA 7: QUALITY ASSURANCE AND PUBLIC INFORMATION

7.1.	The development of the field of study is based on an internal quality assurance system involving all stakeholders and continuous monitoring, transparency and public information

FACTUAL SITUATION

7.1.1. Internal quality assurance system for the programmes is effective

The SER outlines the quality assurance system at MRI across four levels – university, institute, programme, and subject – integrating internal and external evaluations and involving students, faculty, alumni, and external stakeholders. Stakeholders contribute to governance, feedback, and curriculum development, ensuring a collaborative approach to maintaining and enhancing programme quality. Faculty undergo regular evaluation and professional development, while programme performance and student progress are continuously monitored and published, promoting transparency and ongoing improvement.

The on-site meetings with MRI students (current and alumni) and teachers highlighted the significant efforts made by MRI staff since the last review, demonstrating a strong commitment to implementing previous recommendations. The institute actively seeks student input through end-of-course evaluations, fostering a culture of continuous enhancement. The shift towards more qualitative student feedback, including free-text comments alongside quantitative scoring, allows for deeper insights into course strengths and areas for improvement. This immediate and detailed feedback loop enables faculty to refine and adapt courses annually, ensuring that the student experience remains responsive to their needs and expectations.

7.1.2. Involvement of stakeholders (students and others) in internal quality assurance is effective

The Self-Evaluation Report (SER) highlights that the quality assurance system for the Biology and Marine Biotechnology programme actively involves teachers, students, alumni, and external partners, ensuring continuous improvement and alignment with industry needs. MRI collaborates with key organisations like the Lithuanian Maritime Museum and the Environmental Protection Agency to shape the curriculum based on labour market demands.

Social partners contribute through working groups, projects, and direct engagement with university leadership, influencing curriculum updates and participating in teaching and thesis defences. Students provide feedback through representation in governance structures, while alumni contribute via surveys and opinion polls.

Faculty and administrative staff continuously monitor and enhance the programme, with public MRI Council meetings fostering transparency and collaboration. Partnerships support internships, placements, and broader marine sector development, reinforcing the programme's practical and professional relevance.

7.1.3. Information on the programmes, their external evaluation, improvement processes, and outcomes is collected, used and made publicly available

The SER highlights that KU systematically collects, analyses, and publishes information on its study programmes, evaluation processes, and improvement initiatives. Various internal assessments are conducted, including student evaluations of teaching quality, graduate feedback on study effectiveness, and administrative reviews of programme implementation. Additionally, KU gathers data on the efficiency of the study process and the quality of internships.

Annual indicators are monitored as part of KU's Quality Management System, ensuring that evaluation results contribute to continuous improvement. This data is accessible to the academic community and summarised in the annual KU Report, which is publicly available on the university's website.

The KU website also serves as a central hub for study-related information, providing details on admission requirements, study programme descriptions, expected qualifications, career opportunities, and regulatory documents. Evaluation outcomes, including feedback from social stakeholders and programme assessment results, are also made publicly available, ensuring transparency and accountability.

The evaluation group's findings during the on-site visits and meetings were largely consistent with the impressions outlined in the SER. Discussions with students, faculty, and administrative staff confirmed that the mechanisms for internal research and quality assurance appear to be well-established, aligning with the SER's description of KU's commitment to continuous programme evaluation and enhancement.

7.1.4. Student feedback is collected and analysed

KU has a structured system for gathering student feedback on the quality of studies, ensuring continuous programme evaluation and improvement. At the end of each semester, students assess study subjects and teaching quality through evaluation questionnaires, with results discussed at Committee of Physical and Life Sciences Study Fields (CSF) and Marine Research Institute (MRI) meetings. Additional surveys monitor internship experiences, reasons for study discontinuation, and graduate perceptions of the programme.

Between 2021 and 2024, participation in student surveys ranged from 38% to 100% (average 65%), and overall student satisfaction was very high, with an average programme rating of 4.7 out of 5. The highest-rated aspects included academic honesty, relevance of subjects, fairness in assessment, interactive teaching, and constructive communication with students. Specific courses, such as Vertebrate Biology, Biotechnology, Aquaculture, and Blue Biotechnology Development and Marketing, received the highest ratings (4.9).

Student comments highlighted competent and approachable lecturers, engaging lectures and laboratory work, and valuable hands-on learning experiences. Some students suggested expanding certain course content, such as Biological Monitoring and Vertebrate Biology. Issues raised regarding assignment difficulty, Biochemistry course content, and grading fairness were addressed promptly by the CSF and lecturers, leading to immediate improvements in course content, assessment methods, and teaching approaches. In cases where student concerns were significant, actions such as hiring a new lecturer and revising teaching methods led to notable improvements in course satisfaction.

This systematic feedback collection and responsiveness to student concerns demonstrate KU's commitment to continuous improvement and student-centred learning.

The impressions outlined in the SER were largely confirmed by the evaluation group's findings during the on-site visits and meetings. Discussions with students, confirmed that KU systematically collects and responds to student feedback, ensuring continuous improvement in teaching quality and study content. Current students as well as alumni expressed high overall satisfaction with the programme, highlighting engaging lectures, hands-on laboratory work, and responsive faculty.

ANALYSIS AND CONCLUSION (regarding 7.1.)

The internal quality assurance system at Klaipėda University (KU) and the Marine Research Institute (MRI) is well-structured and integrates multiple stakeholders, ensuring continuous improvement, transparency, and responsiveness to feedback. The Study Quality Committee and the internal MRI Biology and Ecology Study Organisation Group oversee quality assurance, with input from students, faculty, alumni, and social partners. This multi-level approach allows for systematic monitoring and refinement of the Biology and Marine Biotechnology programme.

Student feedback mechanisms remain a central component of quality assurance. While the current system relies on formal questionnaires, which are part of a university-wide approach, KU has acknowledged the need for a more dynamic feedback system that enables quicker improvements. Despite this limitation, the response rate in student surveys has been relatively high (38%-100%), and feedback has led to tangible improvements in course content, teaching methods, and even faculty assignments. The involvement of lecturers, the Head of the Programme, and the Study Organisation Group ensures that student input is actively considered.

The on-site evaluation confirmed that KU's quality assurance efforts align with the Self-Evaluation Report (SER). Discussions with students, alumni, and faculty validated that feedback mechanisms are effectively used to drive programme enhancements. Positive findings include high student satisfaction scores (4.7/5 on average), strong engagement with external partners, and a clear commitment to integrating feedback into programme development.

However, an area for improvement identified in the SER and the previous external evaluation relates to strengthening feedback mechanisms with social partners. While employers and external stakeholders contribute to curriculum development, their involvement in quality management processes could be expanded and formalised further to ensure a more structured approach to aligning the programme with industry needs.

Conclusion:

The quality management and transparency of the study process at KU/MRI fully meet expectations, with a structured approach to student and faculty engagement, programme evaluation, and continuous improvement. The existing feedback system is effective, although efforts to develop a more responsive, real-time mechanism for programme adjustments should be prioritised. Additionally, further engagement with social partners in quality management would enhance the alignment of the programme with labour market trends and industry expectations. The evaluation team's findings confirm that the system is well-implemented and functions as described in the SER, reinforcing the judgment that the aim of maintaining a comprehensive and transparent internal quality assurance system is fully met.

AREA 7: CONCLUSIONS

AREA 7	Unsatisfactory - 1 Does not meet the requirements	Satisfactory - 2 Meets the requirements, but there are substantial shortcomings to be eliminated	Good - 3 Meets the requirements, but there are shortcomings to be eliminated	Very good - 4 Very well nationally and internationally without any shortcomings	Exceptional - 5 Exceptionally well nationally and internationally without any shortcomings
First cycle				X	

COMMENDATIONS

1. KU/MRI maintains an effective system for gathering and acting on student feedback, ensuring that both positive and critical input leads to concrete programme improvements. High student participation in surveys (38%-100%) and responsive action from faculty demonstrate a commitment to continuous enhancement of the learning experience.
2. The Study Quality Committee and the internal MRI Biology and Ecology Study Organisation Group provide multi-level oversight, integrating input from students, faculty, and alumni. The systematic collection, analysis, and publication of study programme evaluations enhance transparency and ensure ongoing curriculum refinement.

RECOMMENDATIONS

To address shortcomings

None

For further improvement

1. While the current questionnaire-based system is effective, its formal structure may slow down response times for implementing changes. KU should continue developing a more dynamic feedback system, allowing for quicker adjustments to study processes and programme planning.
2. While social partners contribute to curriculum development, their role in formal quality assurance processes could be expanded. Establishing regular structured consultations or advisory panels with industry representatives would enhance alignment with labour market needs and ensure the programme remains highly relevant to professional expectations.
3. Encourage greater participation from social partners in delivering guest lectures, workshops, and collaborative projects. This would enhance practical learning and provide students with (even) broader exposure to industry practices and innovations.

V. SUMMARY

The review panel is impressed by the tremendous work on increasing the quality of teaching within the Biology and Marine Biotechnology programme since the last evaluation. In fact, the effects are outstanding, resulting in an incredibly increased final score, from 22 (in the previous evaluation) to 31 (current score), and all ranks in the current evaluation at the levels of “very good” and “excellent” (despite three ranks “satisfactory”, with several strong recommendations, in the previous evaluation). The panel appreciates very much all the efforts which led to such a huge improvement.
Currently, the major strengths of the programme are as follows:

- Strong alignment with marine biology and biotechnology.
- Extensive collaboration with industry and engagement of stakeholders.
- Very well-structured and progressive curriculum.
- Customization and flexibility for students.
- Commitment to research-led education.
- High degree of student satisfaction.
- Very high level of research, including intensive international collaboration and realization of a high number of national and international research projects.
- Involvement of virtually every student performing his/her bachelor thesis in a research project.
- Extensive hands-on experience of students during the study process.
- Various active teaching methods (like case analysis, group discussions, problem-based learning, and others) and student engagement in active participation in lectures, workshops, seminars, and practical classes.
- Comprehensive student support systems.
- Strong focus on graduate employability.
- Effective feedback mechanisms and continuous improvement of the programme.
- Very high efficiency in receiving and conducting research projects (both national and international) by the teaching staff.
- Individual supervision of virtually every student by academic teachers.
- Very intensive academic mobility of the teaching staff.
- Extremely effective system for improving qualifications of teachers.
- State-of-the-art laboratories and infrastructure providing students with extensive hands-on experience and access to cutting-edge technology.
- Intensive collaboration with external partners.
- Effective system for gathering and acting on student feedback.
- Multi-level oversight, integrating input from students, faculty, and alumni.

Although the review panel did not present any recommendations to address shortcomings, there are still some points which might be improved to develop the study programme even more effective. The most important suggestions include:

- Introducing a clearer guidance regarding the support system mechanisms and advisory structures available would further enhance students' ability to align their education with their long-term career goals.
- Expanding the tracking of graduate outcomes, such as sector-specific data, job satisfaction, and geographical distribution.
- Increasing the frequency of workshops, webinars, and open access sessions focused on academic and psychological support, particularly targeted at new and international students.

- Offering additional resources, like seminars and workshops, to guide students on how to apply the knowledge gained from their studies to launch their own businesses or acquire complementary skills for interdisciplinary expertise.
- Offering additional workshops for teachers on inclusive teaching strategies or the use of assistive technologies.
- Formalizing mentorship programs, where alumni can provide guidance on career development, industry trends, and academic choices.
- Clarifying communication of appeal processes to international students.
- Collecting and analyzing student feedback, specifically on the usability and effectiveness of assistive technologies.
- Investing additional sources in emerging marine biotechnology equipment and specialised experimental tools.
- Expanding student numbers slightly, without compromising teaching quality, to justify further investment in research facilities and laboratory capacity.
- Developing a more dynamic feedback system, allowing for quicker adjustments to study processes and programme planning.
- Establishing regular structured consultations or advisory panels with industry representatives.
- Encouraging greater participation from social partners in delivering guest lectures, workshops, and collaborative projects.

The review panel would also like to thank the team who prepared the self-evaluation report for especially clear and informative materials. The authorities and representatives of KU are especially thanked for efficient organisation of the site-visit, making it smooth and effective, and for engagement in discussions with the review panel which provided very important information, helping the panel to prepare the final report.

VI. EXAMPLES OF EXCELLENCE

Examples of excellence should include examples exhibiting exceptional characteristics that are, implicitly, not achievable by all.

1. Thie programme plays a key role in fulfilling the regional demand for marine biotechnology professionals, providing a curriculum focused on practical research skills, sustainability in marine resource management, and hands-on experience through internships.
2. The programme benefits significantly from close collaboration with industry partners, including environmental agencies and biotechnology companies, making it relevant to real-world trends and the labour market needs.
3. Offering a high degree of flexibility, allowing students to tailor their education to their career goals, enabling them to design a personalized study path.
4. Integrating diploma theses into the programme's structure, with many topics linked to industry and research partner projects.
5. Especially high level of research, coupled with intensive international collaboration and realization of a high number of national and international research projects.
6. Virtually all diploma theses performed in the course of participation of students in research projects.
7. Using various teaching methods enhancing independent learning, teamwork, and practical expertise; the focus on laboratory and specialized practices is particularly beneficial in developing practical skills.
8. An open-door policy ensures a strong support system for students, including access to faculty, resources (like the student union), and regular meetings.
9. Impressive successes in receiving and conducting research projects (both national and international) by the teaching staff.
10. Individual supervision of virtually every student by academic teachers.
11. Intensive academic mobility of the teaching staff (90% of teachers involved in academic mobility activities).
12. Extremely effective system for improving qualifications of teachers (with 100% of teachers improving their research skills and 80% of teachers improving their teaching skills during last years).
13. The presence of state-of-the-art laboratories and infrastructure, available also for students.
14. Highly efficient system for student participation in surveys (38%-100%) and responsive action from faculty, facilitating enhancement of the learning experience.