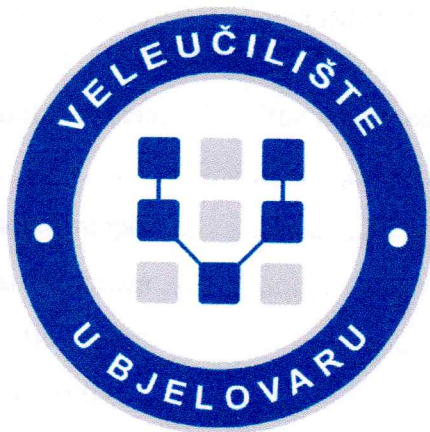


CLASS: 602-04/21-08/001

REG. NO.:2103/01-21-09-21-04



BJELOVAR UNIVERSITY OF APPLIED SCIENCES

Quality improvement action plan in the procedure of the 2nd reaccreditation cycle for the period between 2021 and 2023

Date and place:

Bjelovar, 2nd February 2021

Responsible person and signature:



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College Prof.

Content

Introduction.....	3
DETAILED ANALYSIS OF EACH STANDARD, RECOMMENDATIONS FOR IMPROVEMENT AND QUALITY GRADE FOR EACH STANDARD	4
I. Internal quality assurance and the social role of the higher education institution.....	4
II. Study programmes	9
III. Teaching process and student support.....	12
IV. Teaching and institutional capacities	14
V. Professional and/or scientific activity	17
Activity plan based on the defined objectives	19

Introduction

Bjelovar University of Applied Sciences was in the process of reaccreditation in the academic year 2018/2019. The Expert Panel visited the institution on 14 and 15 May 2019. The final version of the Final report of the Expert Panel in the process of reaccreditation of Bjelovar University of Applied Sciences was delivered to the institution on 15 September 2020. In accordance with the criteria, the Expert Panel evaluated Bjelovar University of Applied Sciences with the following grades:

Quality grade by assessment area				
	Unsatisfactory level of quality	Minimum level of quality	Satisfactory level of quality	High level of quality
I. Internal quality assurance and the social role of the higher education institution			X	
II. Study programmes		X		
III. Teaching process and student support			X	
IV. Teaching and institutional capacities			X	
V. Professional and/or scientific activity			X	

In accordance with the Letter of Expectation received on 3 November 2020 (Class: 602-04/20-13/00117, Reg. No.: 533-04-20-0002), Bjelovar University of Applied Sciences is obliged to eliminate the identified shortcomings within three years and submit an action plan to the Agency for Science and Higher Education within six months from the date of receipt of the Letter of Expectation.

Bjelovar University of Applied Sciences has developed the action plan adopted by the Professional Council in its 6 session held on xy.xy.2021, and by the Governing Board in its 8 session held on 2nd February 2021.

DETAILED ANALYSIS OF EACH STANDARD, RECOMMENDATIONS FOR IMPROVEMENT AND QUALITY GRADE FOR EACH STANDARD

I. Internal quality assurance and the social role of the higher education institution

1.1. The higher education institution has established a functional internal quality assurance system.

Currently the quality assurance system and the policy of document management is well- suited according to the small size of the institution. However, further growth would require more formalized processes for, e.g. the definition of improvement measures in the face of feedback in case it indicates optimization needs.

There is also improvement potential in more intensively communicating the quality assurance policy and its importance for achieving the strategic goals to teachers and stakeholders, especially those who are not fully or not at all employed at the school. Naturally, external lecturers are more difficult to reach with communicative measures, so that, for example, conveying an understanding of learning outcomes requires intensified efforts.

The team spirit and mutual support among colleagues at Bjelovar UAS seems to be very well developed; still, the school could develop further towards a stronger, and in the future even at least partially formalized, peer-to-peer review policy.

Moreover, the development of a realistically achievable research strategy should be strengthened further, in case the school seeks to reach its vision to achieve scientific excellence in the long-term future.

In view of the high number of strategically important measures, it is recommended to henceforth seek for a clear prioritisation in order to achieve a profound probability of implementation.

Since the school has set itself numerous ambitious goals, to which the participants are very committed, a research strategy that has successfully been implemented will probably not be achievable in the short term. The development step from professional excellence to research excellence requires significant strengthening of the scientific training of the lecturers, a scientific output (journal articles, conferences, etc.) at an internationally recognized level and own research projects (in the scientific sense). As a consequence, it should also become apparent in the education that excellent final theses of the students (already today, from an engineering perspective, very well executed final projects) should be built consistently on research state-of-the-art and a clear theoretical scope (today rather technical and popular scientific sources).

If the institution aims to intensify its research activities, the technical state of the equipment, which is currently very good from a professional field point of view, should be expanded (for example by means of suitable research applications in suitable niches), in order to procure equipment for that development, because development from its own funds would probably overstretch the financial and personnel possibilities of the institution. A situation must be avoided in which lecturers (must) neglect educational standards in favour of research interests.

Quality grade

Satisfactory level of quality

1.2. The higher education institution implements recommendations for quality improvement from previous evaluations.

Although it was recommended during the re-accreditation process in May 2013 to analyse external constraints and to secure the development of the university in the form of a multi-year commitment by the supervisory authorities, the long-term securing of the financing share of the local authorities does not seem to have been fully clarified. This represents a severe risk for the university, especially in view of the intensive and successful further development of recent years that has been observed so far. It is recommended that the institution alternatively secures its revenues by trying to diversify its sources of finance in order to become less dependent on individual contributors. However, since both, the industrial environment and the national and international funding landscape, offer rather low acquisition probabilities and surcharge rates, the Panel expressly recommends to secure the financial share of the local government for several years according to public budgetary possibilities.

As a further improvement, it is advisable to revise the mission statements of the study programs so that all three programs are committed to the mission of teaching the latest technology standards. Furthermore, the mission statements should be less similar (as already stated in the re-accreditation report in May 2013, there is a lack of specific advantages and differences in the study program profile). Rather, the mission statement for each of the three study programs should make clear what - apart from common themes such as excellently trained and professional graduates - is the special feature of the respective study program, what is the decisive reason for future students, interested lecturers and companies to choose Bjelovar Polytechnic.

When implementing mentoring measures for teachers, a particular challenge is the supervision and further training of external lecturers, who have little time and sometimes limited motivation to occupy themselves with the concerns of the university beyond the pure teaching and student supervision, according to their own professional tasks. Here the Panel recommends intensifying the efforts to communicate important basic concepts of a higher education institution in a more sustainable way. These are - especially for lecturers with little university experience - in particular the concept of ECTS (in the on-site visit often misleadingly equated with the time of classroom teaching, ignoring the self-study of the students) and the introduced learning outcomes. Although the learning outcomes are clearly communicated to the students, it seems that the relationship between the learning outcomes and the competences required in the later occupational field has not been fully understood by the students. Since students are typically very strongly oriented towards examinations, the higher education institution should analyse examination practice at the course level in the next development step on the subject of learning outcomes. Ideally, this is not a central step that is commanded or even carried out by the university management, but instead is done by the teachers themselves in the course of a continuing education measure and is accompanied in the sense of a peer-to-peer improvement process, e.g. by the vice-dean of teaching or by moderators with didactic experience. External lecturers should be given an internal "buddy" who is a well-founded contact person and who intensively discusses the learning outcomes with the external lecturer in relation to the examination form of the externally taught course.

This decentralized approach combines two advantages: firstly, improvement and further training take place in one go. Secondly, this decentralized approach distributes the workload among many people and thus increases the probability of the measure being implemented. In addition to the design of the internship and the practical parts of the studies, the Panel recommends paying more

attention to the quality of the final theses. The higher education institution has made a very good impression on the Expert Panel in the professional field reference and practical project work, but at the moment there is still no consistent academic foundation that one would expect at bachelor level. The university should strengthen this without falling into the misleading trap of expecting only theory-based work from students who lack professional relevance.

The library should check hand in hand with the updating of the study programs whether the available access options to ebooks (especially textbooks) are sufficient. Insofar as teachers work with printed book copies, it should also be examined here whether bottlenecks are to be feared, especially with an increasing number of students.

Overall, the university is on a very good development path and has shown impressively that it implements recommendations for improvement with commitment and systematically. The Expert Panel recommends the continuation of this path with clear prioritisation and temporal gradation of the individual topics into short-term, medium-term and long-term measures. One of Bjelovar University's strengths is the intensive cooperation of all those involved, which makes the implementation and achievement of objectives appear extremely probable.

The university should pay close attention to the development of human resources in terms of the number of employees and their quality. Especially in the field of nursing, it is necessary to recruit additional staff. This especially applies in case the school would like to pursue its growth strategy and establish a new master program in mechatronics, but also in the other subjects. One risk here is the question of how easily or how quickly the university can attract qualified teachers. The idea of initially recruiting interested persons as external associates and only subsequently hiring them on a permanent basis is to be regarded as good practice. Yet, in view of labour market constraints, the feasibility of these good intentions is questionable. Particularly when external lecturers themselves have intensive professional obligations to fulfil, there is a danger that, firstly, there will be no interest in a transfer to a permanent teaching position at a higher education institution and, secondly, that the operation of the higher education institution will be impaired by a lack of time and motivation to deal with, e.g., didactic standards. Another problem for high-level external lecturers could be the availability of time and the frequent need for schedule changes or short-term cancellations. The university will not be able to avoid this as it is exposed to the external market in these matters. It should, however, establish effective processes that make it possible to master this challenge as professionally as possible.

There was no clear evidence - neither from documents nor from the on-site visit - of how the institution is following the recommendations of the May 2013 re-accreditation report to keep an eye on the workload of teachers in order to avoid overwork. However, this is a critical success factor for sustainable development, especially if the recruitment of new teachers is delayed. Thus, the Panel's recommendation remains unchanged, to keep an eye on teacher overload in order to identify undesirable developments quickly and to be able to take structural countermeasures on time.

Quality grade

Satisfactory level of quality

1.3. The higher education institution supports academic integrity and freedom, prevents all types of unethical behaviour, intolerance and discrimination.

According to the analysed documents and the on-site interviews, the work performed by teachers is based on the principles of academic ethics. However, in the future, nursing as well as mechatronics and computer science will face more and more ethical questions, which students should be made aware of. In the field of nursing, these are e.g. the appropriate handling of new medical technologies, e.g. the question of robot-assisted care of elderly or impaired patients, e.g. euthanasia, palliative care, organ donation after cerebral death. Both, mechatronics and computer science, have to deal with ethical questions in the field of artificial intelligence: For example, how to deal with autonomous transport robots whose navigation is based on probabilistic technologies, how to set suitable safety standards anyway, how to implement ethical decisions in algorithms, and e.g. what needs to be considered in connection with concepts such as "explainable AI" and the progress of data sciences. Other questions concern the environmentally sound and low-risk disposal of materials that are difficult to degrade or virulent, for example. A vocational education must keep these topics in an adequate balance of competitiveness, orientation towards human values of our cultural area and technological possibilities. The recommendation of the Expert Panel is to specifically sensitize these questions at suitable points in the curricula as well as within the framework of further training for teachers, in guidelines for the preparation of final papers, etc. and to encourage teachers and students to integrate these ethical concerns in a targeted manner into the specialist topics in the sense of "ethics-on-the-loop". This would constructively complement the cross-sectional function of the ethics committee. The Panel emphasizes the importance of ethical questions and recommends, instead of exaggerating many, rather superficial measures that run the risk of only having an effect on the surface (danger of the reaction of the audience in cognitive dissonance "why ethics again?!?"), to take a few targeted and highly sensitizing actions. A further recommendation is to encourage teachers and students who are writing their final theses to purposefully include (and discuss) literature sources in their textbooks, theses and published papers that relate to these topics and especially to existing ethical guidelines at national and European (and if applicable global) level.

If the university, as expressed in the discussion with the management, intends to grow to a number of e.g. 1,000 students, it will have to be considered how it can be achieved to broadly anchor the maintenance of outstanding ethical standards despite many participants. This, for example, seems comparatively simple for plagiarism testing. The sensitive and appropriate anchoring in the curricula and the strengthening of these topics in the mental model of students might become a particular challenge. The university should formulate very concrete measures for this concern in its growth strategy in order to achieve sustainable implementation quality. In addition to the already widely and clearly communicated declarations of intent and guidelines of the university, the criteria for the selection of new teachers and the continuous, but not to the contrary effect exaggerated raising of awareness at all levels will be necessary.

Quality grade

Satisfactory level of quality

1.4. The higher education institution ensures the availability of information on important aspects of its activities (teaching, professional and/or scientific and social role).

If the university, as stated during the on-site meetings, intends to attract more international students and prevent the migration of locally resident excellent high school graduates to other universities (e.g. Zagreb), it is nevertheless recommended to strengthen the English-speaking presence. This does not primarily concern the information policy, but rather the availability of English courses beyond the individual consultations or projects for foreign students that are currently treated as good practice. Both foreign students and ambitious domestic students have higher demands on the multilingualism of an academic institution. More detailed information on, e.g., pass rates, labour market data and other operational quality indicators could be provided on the university's website more visibly. Here is the recommendation to strategically select which information is particularly beneficial to the objectives and attractiveness of the university and to use it in a targeted manner for respective marketing and publicity efforts.

In technical matters in particular, the university must not underestimate the effort required to be equipped with the latest technology and to grow at this high level or to start research activities and/or establish master programs. It would be disadvantageous to use the time resources of the university staff for the acquisition of funds via the fee rather than for tasks in research, teaching and student support. However, the tighter and uncertain the financial resources of an institution, the higher the proportion of time that will inevitably flow into the generation and securement of financial resources, thus slowing down the development of the school in terms of content and education.

Quality grade

Satisfactory level of quality

1.5. The higher education institution understands and encourages the development of its social role.

In view of the great importance of the school in making Bjelovar an attractive location for ambitious people and industrial companies, it would be important to secure the development of the university financially in the long term. The necessary internationalization and the planned establishment of a mechatronics master's course require a solid and multi-year financing basis in addition to the undoubtedly existing high level of commitment of the school. In return, the university can intensify its marketing activities and thus make a stronger contribution to the visibility of the location. In the long term, the potential for research excellence exists in special niches. However, this requires solid financial resources, which allow for a capacity endowment with which such a request can be realized in terms of personnel and technical infrastructure.

Quality grade

Satisfactory level of quality

1.6. Lifelong learning programmes delivered by the higher education institution are aligned with the strategic goals and the mission of the higher education institution, and social needs.

The activities that are promising at today's beginning should be expanded and professionalized according to the action plans anchored in the strategy of the university. In doing so, it is important not to neglect other strategically important university projects. Another risk that the school should avoid is to utilize the scarce personnel resources in too many strategic initiatives at the same time: the consequence would be, firstly, the risk of overloading the persons involved and, secondly, the half-hearted processing of many measures without really being able to complete them to an excellent stage.

The Expert Panel found the university to have very good content and high potential for development. We expressly encourage the school to continue along the development path it has begun towards a level of quality that is highly likely to be satisfactory and possibly also high in the future.

Quality grade

Minimum level of quality

II. Study programmes

2.1. The general objectives of all study programmes are in line with the mission and strategic goals of the higher education institution and the demands of the labour market.

Following the recommendation of the EU Directive (who could be mentor, method of mentoring, performing training hours in the nursing care field/2300 hours). Implement nursing practice standards in training teaching process. Improve managing human/teaching resources through projection of required teaching personnel.

Quality grade

High level of quality

2.2. The intended learning outcomes at the level of study programmes delivered by the higher education institution are aligned with the level and profile of qualifications gained.

HEI management have to organise education courses about implementing learning outcome in the teaching process. Implementation of learning outcomes has to be monitored permanently.

In order to achieve the intended learning outcomes, significant changes are needed, but first, the institution needs to ensure additional training for mentors and reorganise the

mentorship system. As there is no formal additional education (development of particular competencies) for mentors or clinical educators in the Republic of Croatia, it is necessary to organise continuous professional development for them, which will, among other, include the application of guidelines (in agreement with the Croatian Nursing Council), methods of implementation, monitoring and assessment of learning outcomes, and different methods and approaches in the teaching process.

It will also be necessary to determine the criteria by which the practical part of a particular course is implemented, thereby ensuring the achievement of the intended learning outcomes.

The processes of achieving learning outcomes and assessing the students according to the learning outcomes should be monitored by different tools: guidelines or procedures (which are missing), including all other pedagogical approaches (providing help to students who have difficulties acquiring skills, working with gifted students, counselling, motivating students, etc.)

The current method of mentoring at clinical sites needs to be reorganised, so that mentors are free of their usual work duties during the clinical practice. It is important to note that these issues are not pertaining to this particular study programme; all the nursing programmes in Croatia have the same problems. The organisation of studies and the curriculum set according to the EU Directives cannot be practically implemented (learning outcomes). This means that significant changes are needed with regard to the organisation of nursing studies in Croatia. One example is part-time study, where students are obliged to attend 60% classes. They are additionally exempted from 20% of classes, so the obligation of 40% remains. The learning outcomes have to be achieved - the question is: how?

Quality grade

Minimum level of quality

2.3. The higher education institution provides evidence of the achievement of intended learning outcomes of the study programmes it delivers.

They have to analyse critical points in the teaching process and try to help teachers in realizing a profound learning outcome orientation (e.g., by means of mentors or guidelines). Continuous monitoring/supervision of the teaching process is recommended. Although the curriculum for nursing studies in the Republic of Croatia is predetermined, additional efforts are needed to improve the practical part of the teaching process, where possible. BUAS should analyse critical points in the teaching process and help teachers with better implementation of learning outcomes. What is possible is to improve or introduce tools for implementation of learning outcomes and student assessment based on learning outcomes (guidelines/procedures /protocols). Together with healthcare organizations, HEI should ensure the work of mentors as prescribed by the curriculum (number of hours, assessment of intended outcomes, continuous professional development for mentors).

Quality grade

Minimum level of quality

2.4. The HEI uses feedback from students, employers, professional organisations and alumni in the procedures of planning, proposing and approving new programmes, and revising or closing the existing programmes.

Cooperate more concerning study programmes change.

Quality grade

Satisfactory level of quality

2.5. The higher education institution ensures that ECTS allocation is adequate.

The HEI has to ensure adequate ECTS allocation. ECTS have to be analysed in some elements: students' workload in direct and indirect teaching processes, complexity of teaching materials or other students' obligations (seminars, oral and written exams, student activity in the teaching process, practical training, etc.). The clinical training in nursing education is a very important part of ECTS score. Although the curriculum sets the number of ECTS for each individual course, within the courses **it is necessary and possible to ensure that the student workload is implemented** as prescribed by the curriculum (in the practical part). Practical classes, as set by the curriculum, should be carried out in a way to allow the implementation of learning outcomes and assessment based on learning outcomes, by reorganising the way students are mentored, and by applying objective tools for the implementation of learning outcomes and student assessment based on learning outcomes. In addition, the Panel found that the study programme of nursing lacks new textbooks and manuals from the fields of general and special health care in Croatian language.

Quality grade

Minimum level of quality

2.6. Student practice is an integral part of the study programmes.

The HEI has to ensure better conditions for student practice and improve the criteria for the selection of mentors, mentoring methods and performing Standard operating procedures for clinical practice (SOP). Students have to perform their clinical practice on a clinical department under the supervision of the best nurses. The HEI has an excellent nursing practicum and it will be the basis for performing clinical skills. However, in the clinical department, they are performing many sensitive skills and it demands very precisely demonstrated and supervised skills. The HEI has to ensure to perform 2 300 hours of clinical training which is regulated by the Directive 26/2005/EC and 55/2013 EC. The HEI has to ensure an adequate number of lecturer who perform teaching in nursing (in the documents submitted is evident that some lecturers have 100 hours above proposal norm hours/450). Although the Polytechnic of Bjelovar is a private institution, the Panel considers that long- term teacher overload has a negative impact on the quality of studies and that the higher education institution should provide a sufficient number of lecturers to carry out the teaching process in nursing within one year.

Quality grade:

Satisfactory level of quality

III. Teaching process and student support

3.1. Admission criteria or criteria for the continuation of studies are in line with the requirements of the study programme, clearly defined, published and consistently applied.

None

Quality grade:

High level of quality

3.2. The higher education institution gathers and analyses information on student progress and uses it to ensure the continuity and completion of study.

The recommendation for improvement is that BUAS makes analyses of student progress available and clear to students. Students should be more familiar with gathered information and their use.

Quality grade:

High level of quality

3.3. The higher education institution ensures student-centred learning.

Lecturers should do polls on their teaching methods with other lecturers not relying only on student poll.

Quality grade:

Satisfactory level of quality

3.4. The higher education institution ensures adequate student support.

Students should be more encouraged to use the services of the CISOK centre.

Quality grade

High level of quality

3.5. The higher education institution ensures support to students from vulnerable and under-represented groups.

Students with disabilities should get easier access to the student administration office and entrance to all labs if there would be any need for that.

Quality grade

Satisfactory level of quality

3.6. The higher education institution allows students to gain international experience.

Bjelovar UAS should work on its recognition of ECTS for incoming students, and ensure more language conditions for it. There are no classes and tests organized in foreign languages, so incoming students need to take exams separately which complicates the situation for both students and professors.

Quality grade:

Satisfactory level of quality

3.7. The higher education institution ensures adequate study conditions for foreign students.

BUAS should provide more classes in English for incoming students to better involve them in the curriculum to ensure that they understand the classes better. More courses and exams for incoming students should be in English.

Quality grade

Minimum level of quality

3.8. The higher education institution ensures an objective and consistent evaluation and assessment of student achievements.

Learning outcomes in nursing should be better connected with grading. BUAS needs to find a way that allows students to pass an exam with a high percentage of correct answers not entirely focusing on learning outcomes. To assess the extent to which the student has achieved the intended learning outcomes, the choice of assessment methods is crucial. It is clear that the learning outcomes in the undergraduate study programme of nursing are aligned with the level and profile of the CQF and EQF, however, the methods of practical learning and teaching, and methods of evaluation and assessment are not clearly defined (they currently depend on the knowledge and experience of individual mentor). In this part of the teaching process, there are no tools/standards by which an objective assessment or evaluation of students' learning outcomes in clinical practice could be carried out. All this indicates to critical points / difficulties in attaining the adequate quality of the teaching process, i.e. affects the implementation of learning outcomes, and objective and consistent evaluation and assessment of students' achievement.

In other study programmes learning outcomes are better implemented so students do not have any complaints. BUAS should establish double grading to ensure that grading is objective.

Quality grade:

Minimum level of quality

3.9. The higher education institution issues diplomas and Diploma Supplements in accordance with the relevant regulations.

BUAS should consider including learning outcomes in the diploma supplement.

Quality grade

High level of quality

3.10. The higher education institution is committed to the employability of graduates. Alumni club should be more active.

Quality grade

High level of quality

IV. Teaching and institutional capacities

4.1. The higher education institution ensures adequate teaching capacities.

The Panel commends the institution for excellent ratios of students and full-time teachers in mechatronics and computer sciences programs and recommend to keep it that way in the future, especially when number of students grows. The analysis of the nursing program has shown that three teachers have more norm-hours than allowed, but it also shows that those three teachers have been very productive in publishing both professional and scientific papers, resulting in a total number of 32 scientific and 45 professional papers published in the last 5 years, relatively evenly distributed among the three of them. Although it seems that teaching duties do not stand in the way of professional and scientific research, we believe that it might not leave enough time professional and personal development and might have negative impact in the long run. With that in mind, we recommend hiring new teachers in order to lower the workload of existing teachers and we believe that the period of 1 year is sufficient time to find and employ high-quality teachers. Employing new teachers in Nursing study programme will also have a good impact on the ratio of students and full-time teachers, which is just above the legally defined minimum and will bring this program in line with excellent ratios of mechatronics (0.57) and computer science (0.82).

Quality grade

Satisfactory level of quality

4.2. The higher education institution ensures appropriate quality of external associates.

The Panel wants to commend the institution for selecting very motivated and qualified external associates and also for providing the right environment for professional and personal development (for example: external associates can publish papers and the institution takes care of all publishing costs).

The first area that can be improved is the fact that not all external associates participate in the

supervision of final theses and the number of those supervisions is not evenly distributed. We recommend that the institution implements a mechanism that will motivate external associates to participate in supervising the final theses (two possible tools might be financial aspects and the prerequisite for re-election). Also, care must be taken that one teacher, either full-time or external, does not have too many concurrent final theses, because of possible negative effects on the quality of the final theses or other areas in which the teacher is active.

The second area where the Panel sees room for improvement are the learning outcomes. Based on the discussion with all external stakeholders, the Panel learned that the dean, vice deans and the heads of program studies have excellent knowledge of the learning outcomes, but that many full-time employees and external associates could benefit from some additional training on that topic. Also, the meeting with students has shown that nursing program has more challenges with learning outcomes than the study programmes of mechatronics and computer science. The fact that learning outcomes are not at the highest level is to be expected since the institution began implementing them in all programs in this academic year. With that in mind, the Panel suggests additional training in the topic of learning outcomes, especially with regard to their level and their connection to examination methods.

Finally, the discussion with students showed that the process of scheduling the courses leaves some room for improvement, especially in the nursing program. The Panel understands that it is not easy to manage external associates because they all are employed elsewhere. We recommend that the schedules for a semester should be created as early as possible and in firmer cooperation with external associates. Once created and published, the schedule for the semester should be changed only for major reasons, which should minimize cancellations and enable students to better plan their time.

Quality grade

Satisfactory level of quality

4.3. Teacher recruitment, advancement and re-appointment is based on objective and transparent procedures which include the evaluation of excellence.

The Panel commends the institution's approach for the selection of the best candidates for each position, specifically, the institution's decision to find out how a prospective teacher does teaching in the form of guest lectures.

As the institution works on the strategic measure 3.1.1 "Develop a plan for employment, advancement and improvement of teaching and non-teaching staff", the Panel suggests that one criteria for employment be proficiency in the English language, which will have positive impacts on the institution's desire to attract more foreign students and would also benefit the strategic goal "3.2.1. Encourage teaching and non-teaching staff to acquire international experience". The Panel has also witnessed some teachers' reluctance to speak English so the Panel recommends that some form of internal/external education in the English language should be made available to teachers who feel they need it.

The last suggestion is that the institution should put emphasis on the candidates who participate in scientific research, in order to support the institution's intention of becoming a scientific institution and also to act in the direction with strategic measure "3.2.4 Encourage the publishing of scientific

papers in indexed journals”.

Quality grade

Satisfactory level of quality

4.4. The higher education institution provides support to teachers in their professional development

The institution did not provide any formal evidence that it encourages the assessment and improvement of teaching competencies based on the peer-review recommendations. However, in discussions with teachers, the Panel found firm evidence that such a practice exists, but in an informal manner. The Panel recommends formalizing that practice in the years to come.

Quality grade

High level of quality

4.5. The space, equipment and the entire infrastructure (laboratories, IT service, work facilities etc.) are adequate for the delivery of the study programmes and ensure the achievement of intended learning outcomes and the implementation of professional and/or scientific activity.

The Panel is satisfied with the current infrastructure and encourages the institution to continue investing in the infrastructure, especially in light of a planned start of master programs (for example, current mechatronics equipment is good for the bachelor level, but some equipment is lacking for the master level) and higher admission quotas.

Quality grade

High level of quality

4.6. The library and library equipment, as well as access to additional resources ensure the literature necessary for ensuring high-quality of study and scientific and teaching activity.

Although the size and functionality of the library is sufficient for the present amount of students, the institution should have in mind that the growth in the number of students should be followed by the growth of library, both in a physical (acquiring more books and more titles) and virtual sense (more teaching materials via protected website). When the institution becomes a scientific institution, the need for additional bibliographic databases might arise that will have to be financed by the institution itself.

Quality grade

High level of quality

4.7. The higher education institution rationally manages its financial resources.

The Panel commends the institution for managing its financial resources in a good manner that guarantees sustainability. The Panel sees the institution's capability to channel financial resources to a required business aspect in a timely manner as a big competitive advantage and a factor that can guarantee the institution's sustainability and growth, especially towards the master level programs. The institution has shown that it can manage its financial resources in a sustainable and transparent way and the Panel believes, based on presented evidence, that it will continue to do so in the years covered by the current Strategy.

The Panel recommends that the institution tightens its connections with the industry and other academic institutions and to engage in more projects that will generate revenue and help diversify its income sources.

Quality grade

Satisfactory level of quality

V. Professional and/or scientific activity

5.1. Teachers and associates employed at the higher education institution are committed to the achievement of high quality and quantity of professional and/or scientific research.

It is necessary to draw up a plan of activities to encourage the participation of teachers in cooperation with industry and professional and scientific organizations, not only in the region. It is recommended to improve knowledge transfer by organizing specific workshops and courses on innovative technologies, media advertising and collaboration with associates from various fields.

Quality grade

Satisfactory level of quality

5.2. The higher education institution proves the social relevance of its professional and/or scientific research and transfer of knowledge.

The BUAS is recommended to strengthen and develop the mechanisms for improving international cooperation, increasing the number of published works in journals of relevant bibliographic databases. BUAS develops good relations with the economy and the public sector through various projects and other activities. The Panel is of the opinion that further efforts should be made to formalize the financial support and employment with the support of the local community. It is necessary to continuously inform the public about the activities of the University of Applied Sciences (continue organizing open door days, e.g. half-time on a local radio or television station, round tables with local external stakeholders and associations).

Quality grade

Satisfactory level of quality

5.3. Professional and/or scientific achievements of the higher education institution have been recognized in the regional, national and international context.

It is recommended that the BUAS invests further efforts in developing the transparency of professional and/or scientific achievements at the national and international level. It is recommended that the BUAS invests extra effort for the purpose of increasing scientific output and publishing in the best domestic and foreign magazines (in English).

The University of Applied Sciences should encourage teachers to participate in the work of international professional associations and to attend international conferences to enhance their scientific reputation, and thus the reputation of the University in the world. One way to do this is to introduce the obligation to attend at least one international scientific meeting every three or four years as a condition for getting some of the financial support for a conference visit. It is necessary to improve the knowledge of the English language of a certain part of teachers. On a regional basis, the knowledge of the BUAS and the transfer of knowledge to companies should be made more visible by brochure printing.

Evidences exist on participation of employees in the nursing study program in the editorial board of the journals is obvious but it is necessary to encourage technical sciences to participate in professional associations and to arrange journals. The Panel recommends the BUAS as a young institution, developing and encouraging teachers to participate in editorial board of journals and to develop the copyright and patents to enter the register of scientific institutions.

Quality grade

Minimum level of quality

5.4. Professional and/or scientific activities and achievements of the higher education institution improve teaching.

It is recommended to establish a formal vocational training system so that teachers are able to keep track of new findings in their field of work and thus encourage greater achievement in professional and/or scientific activities. Teachers should also take part in workshops on defining learning outcomes to enhance the teaching process.

Quality grade

Satisfactory level of quality

Activity plan based on the defined objectives

Code	Recommendations of the Expert Panel	Activities	Implementation deadline	Implementation indicator	Report on the action plan implementation	Responsible person or bodies
I. I. Internal quality assurance and the social role of the higher education institution						
1.1.	Formalise the processes of the quality assurance system.	1.1.1. Amend the Quality assurance manual. 1.1.2. Amend the Regulations on the structure and activities of the quality assurance system. 1.1.3. Create a Manual for the internal evaluation of the quality assurance system. 1.1.4. Amend the Rules governing the committees' work.	December 2020	- decisions on the adoption of documents passed by the Professional Council		Quality Management representative
1.2.	Improve the dissemination on quality assurance policy among the stakeholders.	1.2.1. Create a QAS Google Drive map and assure content availability for all stakeholders. 1.2.2. Assure training sessions and materials on the Merlin platform for teachers and external associates that cover the currently relevant topics (learning outcomes etc.).	January 2021	- insight into Google Drive and Merlin		Quality Management representative
1.3.	Formalise the peer-to-peer assessment procedure.	1.3.1. Create the Regulations on the procedures, methods and forms of peer-to-peer assessment. 1.3.2. Implement the peer-to-peer assessment once every two years.	June 2021	- decision on the adoption of documents passed by the Professional Council - records on the implemented peer-to-peer assessment		Vice dean for education and student affairs, secretary
1.4.	Improve the scientific and research activities.	1.4.1. Encourage research training among teachers. 1.4.2. Increase the number of scientific papers on the internationally recognised level. 1.4.3. Increase the number of research projects. 1.4.4. Improve the quality of students' final theses.	Continuously	- decisions on co-funding the cost of doctoral studies - decisions on co-funding participation in international scientific conferences - insight into research projects - decision on amending the		Management

		1.4.5. Upgrade the equipment necessary for scientific and research projects.		Final thesis regulations - list of equipment		
1.5.	Assure a funding share from the local administration for a period of several years according to the budget status.	The Town of Bjelovar is a sole founder of the University and since the very beginning the funding, which is clearly defined in the three-year budget plan of the Town of Bjelovar, has never been a matter of dispute, regardless of the change of mayors. The University's share in the overall budget amounts to 82 % of own means. Thus, the University does not depend solely on the founder's funding.		- insight into the budget of the Town of Bjelovar; available on the website - insight into the budget of the Bjelovar University of Applied Sciences; available on the website		Management
1.6.	Update the Development Strategy and the Strategy Implementation Action Plan.	1.6.1. Amend the mission statements of all study programmes. 1.6.2. Clearly define the priorities, short-term, medium-term and long-term measures. 1.6.3. Create a plan for developing human resources, including the employment plan.	June 2023 December 2021	- decision on the adoption of the Development Strategy 2023-2028 - decision on the adoption of the plan for developing human resources		Vice dean for development, vice dean for education and student affairs, secretary
1.7.	Improve the supervision and training of external lecturers.	1.7.1. Create the Regulations on assigning teaching hours to external lecturers. 1.7.2. Provide mentors to external lecturers.	September 2021	- Regulations on assigning teaching hours to external lecturers adopted by the Professional Council - decision on external lecturers' mentors adopted by the Professional Council - improved elements and criteria for final thesis evaluation		Vice dean for education and student affairs, secretary
1.8.	Increase students' awareness regarding the relation between learning outcomes and competencies.	1.8.1. Create a written material on the relation between learning outcomes and competencies and publish it on the website of the Student Union. 1.8.2. Present the relation between learning outcomes and competencies as one of the topics of the mentoring group meetings. 1.8.3. Present the material on the relation	December 2021	- insight into the written material on the website of the Student Union - mentoring group meeting minutes - Student Union meeting minutes		Vice dean for education and student affairs, secretary, heads of departments

		between learning outcomes and competencies at a Student Union meeting.				
1.9.	Provide literature according to the amendments of study programmes.	1.9.1. Annual report on the compatibility of literature and the requirements of study programmes prepared by the head of library. 1.9.2. Literature procurement plan is to be harmonised with 1.9.1.	once a year	- copy of the report prepared by the head of library - literature procurement plan adopted by the Professional Council		Head of library
1.10.	Monitor and make interventions related to teachers' workload in a timely manner.	1.10.1. Committee for Education and Students submits a report on teachers' workload including the proposal of interventions to the dean. 1.10.2. The dean and the Professional Council pass the decision on employment plan and hiring external associates.	once a year	- copy of the report on teachers' workload including the proposal of interventions - decisions on employment plan and hiring external associates		Committee for Education and Student Affairs
1.11.	Modernise the ethical issues in study programmes, final theses and teacher training.	1.11.1. Amend the Ethical Code to include modern ethical issues. 1.11.2. Amend the Final Thesis Regulations to include instructions on following ethical principles. 1.11.3. Include topics on ethics in training courses for teachers and external associates.	December 2021	- decision on the adoption of the amended Ethical Code - decision on the adoption of the amended Final Thesis Regulations - minutes with the list of training participants		Ethical Committee of BUAS
1.12.	Improve the knowledge and use of the English language on all levels.	1.12.1. Provide teachers with a B2 English language training course. 1.12.2. Oblige teachers to create teaching materials and teach in English.	December 2021	- contract with the training provider - insight into the catalogue of courses offered in English		Management
1.13.	Assure detailed information on the pass rates, labour market and other	1.13.1. Amend the website to include information resulting from the annual analysis of quality indicators.	March 2021 September	- insight into the BUAS website		Committee for Education and Student Affairs

	quality indicators.	1.13.2. Improve marketing activities using positive quality indicators	2021	- marketing plan, proof of implemented marketing activities (website screenshot, Facebook...)		Committee for Promotional Activities
1.14.	Expand and formalise lifelong learning programmes.	1.14.1. Create lifelong learning programmes. 1.14.2. Implement lifelong learning programmes.	December 2021 December 2022	- copy of a lifelong learning programme, programme verification document - list of participants, photos		Committee for Lifelong Learning
II. Study programmes						
2.1.	Improve the implementation of EU directives in the undergraduate professional study programme in Nursing.	2.1.1. Create and adopt the Regulations on Mentoring in the undergraduate professional study programme in Nursing. 2.1.2. Amend the programme of practical teaching according to the standards of nursing practice. 2.1.3. Implement training sessions for mentors in accordance with the amended programme and the Regulations on Mentoring.	September 2021 September 2021 October 2021	- decision on the adoption of regulations - copy of the practical teaching programme, nursing practice booklet - list of participants and signatures, training programme, photos		Head of department
2.2.	Management should organise training on the implementation of learning outcomes in the teaching process.	2.2.1. Analyse critical points in the teaching process and suggest improvements and training. 2.2.2. Organise training for teachers and external associates on the implementation of learning outcomes in the teaching process. 2.2.3. Amend learning outcomes and evaluation based on learning outcomes in all courses of all study programmes. 2.2.4. Create guidelines for the implementation, monitoring and evaluation of learning outcomes.	July 2021 September 2021 September 2021 September 2021	- document Analysis of Quality Indicators and improvement suggestions - list of training participants, photos - Professional Council's decision on adopting amended course curricula within study programmes, including learning outcomes - Insight into the document Guidelines for the		Management

				implementation, monitoring and evaluation of learning outcomes		
2.3.	Better cooperation in issues related to the amendments of study programmes.	2.3.1. Feedback from students, employers, professional associations and alumni is to be included in the process of amending the study programmes.	September 2022	- copy of the feedback from students, employers, professional associations and alumni		Vice dean for education and student affairs, vice dean for development, Committee for the Alumni Survey
2.4.	BUAS should assure adequate ECTS distribution.	2.4.1. Analyse the number of ECTS distributed to some elements: student workload in contact and indirect teaching, complexity of teaching materials or other student obligations (seminar papers, written and oral exams, student activity in the teaching process, practical teaching etc.).	September 2021	- student survey results - minutes of department staff meeting - proposals for updating the awarded ECTS credits		Committee for student survey, heads of departments
III. Teaching process and student support						
3.1.	Analyses on student progress should be clear and made available to students.	3.1.1. Improve the activities related to informing students on collected information on student progress throughout their studies and how the collected information is used.	September 2021	- minutes of the Management meetings with Student Union representatives - insight into the BUAS and Student Union websites		Committee for Education and Student Affairs
3.2.	Teachers should mutually evaluate teaching methods and not rely solely on marks from the student survey.	3.2.1. Activities defined in item 1.3.	June 2021	- decision on the adoption of documents passed by the Professional Council - records on implemented peer-to-peer evaluations		Vice dean for education and student affairs
3.3.	Students should be encouraged to use the services of the Career Guidance Centre to a	3.3.1. Improve the cooperation with the Career Guidance Centre (CISOK).	June 2021	- minutes of the meeting with the Croatian Employment Service and the Career Guidance Centre with the		Vice dean for development

	greater extent.	3.3.2. Organise topic-specific workshops for the final year students. 3.3.3. Improve the process of informing the students on career guidance.		suggestions for improving the cooperation - list of workshop participants with signatures, photos - insight into the websites with published information		
3.4.	Students with special needs should be provided with an easier access to the student registry and laboratories, if necessary.	3.4.1. Formalise the possibilities of providing an easier access to the student registry and laboratories for students with special needs.	December 2021	- decision on providing an easier access to the student registry and laboratories for students with special needs		Secretary, head of the student registry
3.5.	BUAS should work on ECTS recognition for incoming students and provide language-related teaching conditions for such students.	3.5.1. Activity defined in item 1.12.	December 2021	- contract with the training provider - insight into the catalogue of courses offered in English		Management
3.6.	BUAS should offer more courses taught in English for incoming students.	3.6.1. Activity defined in item 1.12.	December 2021	- contract with the training provider - insight into the catalogue of courses offered in English		Management
3.7.	Learning outcomes of the study programme in Nursing should be connected with the evaluation in a better manner.	3.7.1. Activities defined in item 2.2.	July 2021 September 2021 September 2021 September 2021	- document Analysis of Quality Indicators and improvement suggestions - list of training participants, photos - Professional Council's decision on adopting amended course curricula within study programmes, including learning outcomes - Insight into the document		Management

				Guidelines for the implementation, monitoring and evaluation of learning outcomes		
3.8.	Set up tools / standards based on which objective evaluation may be implemented, i. e. the evaluation of learning outcomes in clinical practice.	3.8.1. Activities defined in items 2.1. and 2.2.	<p>September 2021</p> <p>September 2021</p> <p>October 2021</p> <p>July 2021</p> <p>September 2021</p> <p>September 2021</p> <p>September 2021</p>	<p>- decision on the adoption of regulations</p> <p>- copy of the practical teaching programme, nursing practice booklet</p> <p>- list of participants and signatures, training programme, photos</p> <p>- document Analysis of Quality Indicators and improvement suggestions</p> <p>- list of training participants, photos</p> <p>- Professional Council's decision on adopting amended course curricula within study programmes, including learning outcomes</p> <p>- Insight into the document Guidelines for the implementation, monitoring and evaluation of learning outcomes</p>		Head of department
3.9.	BUAS should establish double grading to ensure that grading is objective.	3.9.1. Implement double grading in courses that include multiple course instructors.	October 2021	- example of double grading		Heads of departments
3.10.	BUAS should consider listing the learning	3.10.1. Provide a written addendum to the Diploma Supplement that includes the	June 2021	- example of the addendum to the Diploma Supplement that		Vice dean for education and

	outcomes in the Diploma Supplement.	learning outcomes of courses, as it is not possible to generate the learning outcomes from the ISVU application.		includes the learning outcomes of courses within study programmes		student affairs, heads of departments
3.11.	Alumni club should be more active.	3.11.1. Encourage the Alumni club to create an annual activity plan of the Alumni club and monitor its implementation. 3.11.2. Increase the number of activities of the Alumni club.	June 2021	- Activity plan of the Alumni club - report on the activity plan implementation - photos from implemented activities, news published on websites		President of the Alumni club, vice dean for development
IV. Teaching and institutional capacities						
4.1.	It is recommended to employ more teachers in order to reduce the workload of the current teaching staff.	4.1.1. Activities defined in item 1.10.	once a year	- copy of the report on teachers' workload including the proposal of interventions - decisions on employment plan and hiring external associates		Committee for Education and Student Affairs
4.2.	Set up a mechanism for motivating external associates to participate in mentoring final theses and limit the number of final thesis mentorships of employed teachers.	4.2.1. Set up a model for motivating external associates to participate in mentoring final theses. 4.2.2. Amend the decision on the number of final theses that a teacher may mentor.	September 2021	- decision on final thesis mentorship compensation for external associates - amended the decision on the number of final theses that a teacher may mentor		Governing Board Vice dean for education and student affairs, heads of departments
4.3.	Organise additional training on learning outcomes, especially regarding their level and compliance with evaluation methods.	4.3.1. Activities defined in item 2.2.	July 2021 September 2021 September 2021 September 2021	- document Analysis of Quality Indicators and improvement suggestions - list of training participants, photos - Professional Council's decision on adopting amended course curricula within study		Management

				programmes, including learning outcomes - Insight into the document Guidelines for the implementation, monitoring and evaluation of learning outcomes		
4.4.	Class schedule for each semester should be created and published as soon as possible.	4.4.1. Adopt the decision on the obligation of publishing a complete class schedule before the beginning of a semester.	September 2021	- insight into the class schedule		Heads of departments
4.5.	It is recommended that one the employment criteria refers to excellent knowledge of English.	4.5.1. Knowledge of English on the B2 level are to be included in the employment rules. 4.5.2. Organise training courses in English (described in item 1.12.).	September 2021 December 2021	- decision on the adoption of the Amendments of the Regulations on the internal organisation and structure of work positions - contract with the training provider insight into the catalogue of courses offered in English		Secretary Management
4.6.	Encourage candidates who do research work for the purpose of achieving the objective aimed at assuring that BUAS becomes a scientific institution.	4.6.1. Amend the decision on co-funding the publication of scientific papers in indexed journals.	September 2021	- decision of the Governing Board on co-funding the publication of scientific papers in indexed journals		Management
4.7.	Formalise the practice of peer-to-peer assessment.	4.7.1. Activities described in item 1.3.	June 2021	- decision on the adoption of documents passed by the Professional Council - records on the implemented peer-to-peer assessment		Vice dean for education and student affairs
4.8.	BUAS is encouraged to continue making investments in	4.8.1. Activities described in item 1.4.5.	continuously	- list of equipment		Management

	infrastructure, especially due to the planned implementation of graduate study programmes.					
4.9.	Upgrade the physical and virtual library.	4.9.1. Activity described in item 1.9.	once a year	- copy of the report prepared by the head of library - literature procurement plan adopted by the Professional Council		Head of library
4.10.	Improve connections with the industry and other higher education institutions and become more active in project activities.	4.10.1. Update partnership agreements with higher education institutions and the industry. 4.10.2. Intensify the possibilities of participation in national and international projects.	December 2021 continuously	- list of agreements, copies of agreements - list of project applications (national and international calls)		Secretary, Heads of departments Vice dean for development
V. Professional and/or scientific activity						
5.1.	Develop an action plan for encouraging teachers to cooperate with the industry and professional and scientific organisations.	5.1.1. Develop an action plan for making connections with the industry and professional and scientific organisations. 5.1.2. Consider and pass a decision on joining professional and scientific organisations.	December 2021	- an action plan for making connections with the industry and professional and scientific organisations passed by the Professional Council - evidence on joining professional and scientific organisations		Vice dean for development, heads of departments
5.2.	Improve knowledge transfer by organising special workshops and courses on innovative technologies, advertising in the media and cooperation with partners from different fields.	5.2.1. Organise visiting lectures on innovative technologies. 5.2.2. Intensify promotional activities oriented towards the promotion of innovative technologies and the STEM area.	continuously	- list of participants of visiting lectures, photos - plan and report on the implementation of promotional activities		Heads of departments Committee for Promotional Activities

			2021			
5.7.	Encourage teachers to participate in the work of international professional associations and attend international conferences to increase their scientific reputation and the reputation of BUAS in the world.	5.7.1. Formalise the obligation to participate in an international scientific conference with the financial support from BUAS. 5.7.2. Encourage participation in international professional associations (along with activities described in items 5.3. and 5.1.).	September 2021	- Regulations on encouraging teachers to participate in international scientific conferences, editorial boards of journals, international professional associations and patent development and application		Management
5.8.	In the regional environment, knowledge and knowledge transfer to companies need to be made more visible through the production of printed brochures.	5.8.1. Print a brochure with information on cooperation and knowledge transfer to companies.	September 2022	- brochure sample, insight into the website		Vice dean for development, heads of departments
5.9.	Encourage teachers to participate in editorial boards of journals and to work on the development of patents and copyrights for the purpose of registering the institution in the Register of Scientific Organisations.	5.9.1. Encourage teachers to participate in editorial boards of journals and to work on the development of patents and copyrights.	September 2021	- Regulations on encouraging teachers to participate in international scientific conferences, editorial boards of journals, international professional associations and patent development and application		Management
5.10.	Formalise the system of professional development in order for teachers to be acquainted with the	5.10.1. Amend the Regulations on the professional development of teaching staff.	September 2021	- amended the Regulations on the professional development of teaching staff adopted by the Professional Council		Management

	latest developments in their field and thus make better scientific and / or professional achievements.					
5.11.	Teachers should participate in workshops on defining learning outcomes for the purpose of improving the teaching process.	5.11.1. Activities described in item 2.2.	<p>July 2021</p> <p>September 2021</p> <p>September 2021</p> <p>September 2021</p>	<ul style="list-style-type: none"> - document Analysis of Quality Indicators and improvement suggestions - list of training participants, photos - Professional Council's decision on adopting amended course curricula within study programmes, including learning outcomes - Insight into the document Guidelines for the implementation, monitoring and evaluation of learning outcomes 		Management