

**REPORT
OF THE EXPERT PANEL
IN THE PROCEDURE OF INITIAL ACCREDITATION OF THE
PROFESSIONAL SHORT-CYCLE STUDY PROGRAMME
SUSTAINABLE AGRICULTURE AND ENVIRONMENT
UNIVERSITY OF APPLIED SCIENCES MARKO MARULIĆ**

**Date of accreditation:
17 December 2025**

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INTRODUCTION

The Agency for Science and Higher Education (the Agency) is an independent legal entity with public authority, registered in the court register, and a full member of the European Quality Assurance Register for Higher Education (EQAR) and the European Association for Quality Assurance in Higher Education (ENQA).

All study programmes delivered by public and private higher education institutions are subject to the procedure of initial accreditation of study programmes conducted by the Agency in accordance with the Act on Quality Assurance in Higher Education and Science (Official Gazette 151/22) and by following the Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG) and good international practice in quality assurance of science and higher education.

The Agency's Accreditation Council appointed an independent Expert Panel for the evaluation of the professional short-cycle study programme Sustainable Agriculture and Environment at the University of Applied Sciences Marko Marulić.

Members of the Expert Panel (in the same order as in the Decision to Appoint the Expert Panel):

- Prof. Andrijana Rebekić, PhD, Josip Juraj Strossmayer University of Osijek, Faculty of Agrobiotechnical Sciences Osijek, Republic of Croatia,
- Assoc. Prof. Nataša Hulak, PhD, University of Zagreb Faculty of Agriculture, Republic of Croatia, Panel Chair,
- Prof. Tomislav Karažija, PhD, University of Zagreb Faculty of Agriculture, Republic of Croatia,
- Assoc. Prof. Marko Koščak, PhD, University of Maribor, Faculty of Tourism, Republic of Slovenia,
- Kristina Perišić, student, University Josip Juraj Strossmayer of Osijek, Faculty of Food Technology Osijek, Republic of Croatia.

The Expert Panel held meetings with the following groups:

- Management,
- Committee for the development of the study programme,
- Full-time teaching staff that will participate in the delivery of the study programme,
- Representatives of the business sector, potential employers.

The Expert Panel visited the laboratories, the library, the student administration office and the classrooms.

The Expert Panel drafted this Report on the initial accreditation of the professional short-cycle study programme Sustainable Agriculture and Environment of the University of Applied Sciences Marko Marulić, based on the Proposal of the professional short-cycle study programme Sustainable Agriculture and Environment of the University of Applied Sciences Marko Marulić, other relevant documents and the site visit.

The Report contains the following elements:

- Basic information on the study programme,
- Detailed analysis of each quality standard, recommendations for improvement and quality grade for each standard,
- Final recommendation of Expert Panel members,
- Appendices (quality grade summary by each assessment area and standard, and the site visit protocol).

In the analysis of the documents, site visit and the meetings held at the higher education institution, the University of Applied Sciences Marko Marulić, and writing of the Report, the Expert Panel was supported by:

- Iva Žabarović, coordinator, ASHE.

BASIC INFORMATION ON THE STUDY PROGRAMME

Name, registered office and PIN (Personal Identification Number) of the higher education institution: University of Applied Sciences Marko Marulić in Knin, Ulica Petra Krešimira IV 30, 22300 Knin, 13664089430

Title and type of study programme: Sustainable Agriculture and Environment, short-cycle professional study programme

CroQF/EQF/QF-EHEA level: level 5 of the CroQF)

Scientific or artistic field and area of study programme: area of biotechnical sciences (4), field of Agronomy (4.01)

ISCED FoET classification: 4.01.

Programme duration: 2 years (4 semesters)

Number of ECTS credits acquired on the completion of study programme: 120

Academic or professional degree / qualification obtained upon the completion of the study programme (if the study programme has several specializations, the issued degree/qualification cannot be named according to the specialization, but at the level of the study programme): stručni pristupnik poljoprivrede, smjer: održiva poljoprivreda i okoliš (pristup. agr.)

Language of delivery: Croatian

Place of delivery of the study programme (at the head office or outside the head office of the higher education institution): Knin

Method of delivery of the study programme: traditional

Admissions quota (for full-time and part-time students): 20 full-time students and 10 part-time students (20+10)

Academic year in which the study programme delivery is to commence: 2026/2027

In case of joint programmes delivered by Croatian higher education institutions, please include a list co-providers/partners:

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

I. Internal quality assurance

1.1. Clear justification for the introduction of the new study programme has been provided with regard to the mission and strategic goals of the higher education institution, as well as economic and societal needs.

The Expert Panel thoroughly reviewed all submitted documentation regarding the justification for launching the new study programme. In planning and developing the undergraduate study programme “Sustainable Agriculture and Environment,” consideration was given to an analysis of its alignment with the mission and strategic objectives of the UAS, as well as with relevant strategic documents at the regional, national, and global levels. The proposed study programme “Sustainable Agriculture and Environment” has been designed as a short professional programme with a duration of two years. It was developed in response to the UAS strategic objectives and is therefore fully aligned with the key strategic documents of the UAS Marko Marulić in Knin, including the UAS Development Strategy 2025–2029. For the new study programme, enrolment quotas are planned for 20 full-time students and 10 part-time students. The professional short-cycle study programme “Sustainable Agriculture and Environment” was developed in response to current and future challenges in the agricultural sector, with particular emphasis on sustainable production, digitalization, and the circular economy. Although the current recommendations from the Croatian Employment Service (CES) (Recommendations for Educational Enrolment Policy and Scholarship Policy for 2025) do not indicate a clearly defined demand for specialized professionals in the field of sustainable agriculture, available labour market data, strategic documents, and European initiatives point to the growing importance of this sector and an increasingly evident need for its further development.

In preparing the Application, numerous complementary professional and university study programmes in Croatia and abroad were analysed in order to avoid overlap with existing study programmes in the Republic of Croatia, while at the same time enabling both horizontal and vertical student mobility. A review of existing study programmes within the Croatian higher education system established that there is no accredited short-cycle professional study programme (Level 5 according to the Croatian Qualifications Framework – CroQF) in the scientific field of biotechnical sciences and the discipline of agriculture that encompasses sustainable and organic agriculture and is comparable to

the proposed short-cycle professional study programme “Sustainable Agriculture and Environment.” The Application and accompanying documentation submitted by the UAS in Knin indicate that there are two professional short-cycle study programmes, “Animal Production” and “Crop Production,” offered by the UAS in Križevci. All three programmes (the two in Križevci and the proposed programme in Knin) demonstrate a clear focus on acquiring the practical knowledge and skills required for employment in the agricultural sector. The programmes are practice-oriented, include fieldwork and professional training placements, and prepare students for direct involvement in agricultural production or for continuing their education at higher levels of professional studies. A comparative analysis of the professional study programmes in Križevci and Knin shows that the “Animal Production” and “Crop Production” programmes are primarily focused on specific segments of agricultural production and the development of specialized production competencies. In contrast, the “Sustainable Agriculture and Environment” programme offers an integrated approach that combines plant and animal production with the principles of sustainable development and environmental protection. It is precisely this emphasis on sustainability and biodiversity that represents the key distinction and added value of the study programme in Knin compared with the specialized production-oriented programmes in Križevci.

Based on the above, the Expert Panel concludes that the establishment of the new study programme is justified and that it provides graduates with strong employment prospects.

The higher education institution requested an opinion from the Croatian Employment Service (CES); however, no response was received within the legally prescribed period of 30 days. Therefore, the opinion of the Croatian Employment Service is considered to be positive.

The Expert Panel, based on the submitted documentation and other relevant facts (including discussions with stakeholders during the site visit, in which strong and unequivocal support for the study programme was expressed and its exceptional importance for the future development of the area was emphasized), also took into account the additional and highly significant fact that the Knin region has the status of an Area of Special State Concern.

Recommendations:

The Expert Panel recommends that the higher education institution continue to monitor labour market trends and, where necessary, adjust enrolment quotas accordingly.

Quality grade:

Fulfilled

1.2. The study programme has undergone an appropriate internal quality assurance process and has been formally approved by the higher education institution.

All internal quality assurance procedures are carried out effectively and transparently. The development of the new professional short-cycle study programme Sustainable Agriculture and Environment has undergone an internal quality assurance process which involved internal and external stakeholders (alumni, employers, the local community, etc.) and students. The internal quality assurance process and the formal approval of the new study programme by the UAS were carried out through the following steps:

- Internal quality assurance: According to the Quality Assurance Manual of the University of Applied Sciences Marko Marulić in Knin (2/2022),
- Approval process: The University of Applied Sciences has also adopted the “Regulation on the procedure for the adoption, improvement, and evaluation of study programmes.”
- Quality standards and accreditation: “Quality standards for evaluation in the initial accreditation procedure.”

Based on the submitted documents, as well as the site visit, the Expert Panel agrees that the development, preparation process, and approval of the new study programme “Sustainable Agriculture and Environment” went through an internal quality assurance procedure, which involved both internal and external stakeholders. The programme was developed under the supervision of an appointed Committee, which was confirmed by the UAS’s Governing Council. In the internal quality assurance process, the UAS conducted an analysis of labour market needs and the required competencies for the study programme in the field of biotechnical sciences and agriculture, with a special emphasis on sustainable agriculture. The research included 47 employers and 43 employees. Interest in launching a study programme in the field of sustainable and ecological agriculture was additionally supported by strong backing from the local community, including the Economic Council of the UAS Marko Marulić in Knin and the Croatian Chamber of Economy of the Šibenik-Knin County. At the meeting of the Expert Panel with stakeholders from the economy, i.e. potential employers, strong support for the development and implementation of a short-cycle professional study programme could also be observed. At the end of the internal quality assurance process, the procedure was also confirmed by the Council of the UAS Marko Marulić.

All documentation on this topic was prepared to a high standard. This is also confirmed by the conducted interviews with relevant stakeholders at the UAS. Particularly notable

is the strong support for the proposed study programme from stakeholders in the economy and professional practice. The UAS has also fully and properly implemented all formal procedures in accordance with applicable regulations and quality standards in higher education. All quality assurance policies are publicly available on the UAS website.

Recommendations:

Based on all the elements from the application and the interviews conducted during the visit to the UAS, the Expert Panel considers that all elements of the standard are in line with the requirements, and therefore there are no further recommendations.

Quality grade:

Fulfilled

1.3. The higher education institution will collect, analyse and use relevant data for the effective management and continuous enhancement of the study programme in accordance with the published quality assurance policy.

Management and continuous improvement of the study programme are aligned with the higher education institution's quality assurance policy, with defined target values as well as implementation deadlines. The internal quality assurance system, through the Office and the Quality Committee, implements defined processes and monitors key indicators through regular systematic monitoring and evaluation of the quality assurance system (QAS), and consequently of study programmes. This includes: the development of new and revision of existing study programmes in cooperation with external stakeholders, with the aim of ensuring their relevance and alignment with learning outcomes; monitoring and evaluation of teaching processes; monitoring student, staff, and employer satisfaction; tracking alumni employability and changes in the labour market; establishing mechanisms for ensuring the quality of professional and scientific-research work; and continuous professional development of teaching and non-teaching staff.

The UAE has a functional and effective system for the analysis, monitoring, and use of relevant data related to the management and continuous improvement of studies. In this process, feedback is also collected from students, staff, and other relevant stakeholders in order to ensure the continuous improvement of studies. Regulations and guidelines for quality assurance are applied, which clearly define procedures and responsibilities for the ongoing monitoring and enhancement of the quality of the study programme. In these study monitoring processes, data will also be used on the duration of studies, completion rates, and dropout rates, as well as procedures for determining whether ECTS credits are defined in accordance with learning outcomes, and whether the estimated student work-

load is achievable, realistic, and appropriate. Activities are regularly carried out in accordance with regulations and defined deadlines, and the responsible bodies and individuals within the UAS are transparently informed about all aspects of quality control and improvement of the study programme. The results of the monitoring process, as well as the planned action plans, are transparently communicated to the interested public via the UAS's website.

Recommendations:

The Expert Panel recommends that the UAS design and introduce mechanisms necessary to encourage greater student participation in completing student surveys, with the aim of collecting as objective data as possible, which is essential for defining and implementing measures to improve the quality of the teaching process.

Quality grade:

Fulfilled

1.4. The higher education institution informs the public about the study programmes it offers, as well as plans to offer new programmes, i.e. change made to existing ones.

The University of Applied Sciences maintains high-quality and up-to-date websites through which it regularly and systematically informs the public about its study programmes, plans, and any changes related to study programmes. The higher education institution publishes information on admission requirements, intended learning outcomes, teaching and assessment methods, and the awarded qualifications. In addition to the above, the UAS also carries out a number of additional activities, such as participation in various fairs, organising information days at secondary schools, and using various social media platforms to inform the interested public.

Recommendations:

Based on all elements of the application, as well as the interviews conducted by the Expert Panel during the visit to the UAS, we are of the opinion that all elements of the standard have been met, and therefore there are no additional recommendations.

Quality grade:

Fulfilled

II. Study programme

2.1. The proposed study programme is compatible with the qualification standard in the Croatian Qualifications Framework Register.

The qualification standard corresponding to the proposed study programme is not entered in the Croatian Qualifications Framework (CROQF/HKO) register; therefore, the standard is not applicable.

N/A

There is no qualification standard listed in the Croatian Qualifications Framework Register for the proposed study programme, therefore, the standard is not applicable.

Recommendations:

Quality grade:

2.2. The intended learning outcomes at the level of the study programme are aligned with the competences a student should gain by completing the study programme, as well as with the CroQF and EQF level.

Based on the submitted documentation in the initial accreditation procedure, the Expert Panel determined that the proposed short-cycle professional study programme “Sustainable Agriculture and Environment” lasts two years (4 semesters), during which students, by having met all academic requirements, obtain 120 ECTS credits and thereby acquire the professional title of associate of agriculture (assoc. agr., specialisation Sustainable Agriculture and Environment). This is in accordance with the regulations of the Republic of Croatia and Level 5 of the Croatian Qualifications Framework (CroQF/HKO).

At the level of the study programme, 17 learning outcomes have been proposed. For their definition, as described in the text and confirmed in the interview with members of the Study Programme Development Committee, the recommendations from the 2015 ECTS Users’ Guide were used, as well as examples of learning outcomes at the level of study programmes from similar programmes in European countries. This indicates the use of good practice examples in defining the intended learning outcomes.

After reviewing the application and the accompanying documentation, the Expert Panel established that the learning outcomes of the study programme are appropriately defined and correspond to Level 5 of the Croatian Qualifications Framework (CroQF/HKO), that they are in line with the requirements of the profession and internationally recognised standards, and that they ensure relevance of the study programme. The intended learning outcomes of the study programme reflect the competencies required for employment,

continuing education or other individual/society needs. Within the study programme application, professional competencies that students acquire upon completion of this short-cycle professional study programme are specified and are logically linked to the proposed learning outcomes of the study programme. In addition, the HEI also lists 10 general (generic) competencies that students acquire upon completion of the study programme, which are connected to professionally specific competencies, thereby ensuring the development of a comprehensive set of professional competencies among students of the proposed programme. Taking the above into account, the Expert Panel is of the opinion that the proposed learning outcomes of the study programme correspond to the competencies, level of expertise, and level of autonomy and responsibility implied by a Level 5 qualification of the Croatian Qualifications Framework (CroQF).

In preparing the proposal, the authors sought to avoid overlap with existing similar programmes in the Republic of Croatia, while at the same time enabling horizontal and vertical student mobility. In the application and accompanying documentation, the HEI explains the similarities and differences between the proposed study programme and short-cycle professional study programmes at the UAS in Križevci (Animal Production and Plant Production) within the scientific field of Agriculture. Since these are short-cycle professional study programmes in the field of Agriculture, horizontal mobility and comparability of the proposed programme with related programmes in the Republic of Croatia are ensured. In addition, the HEI also references and compares their programme with similar programmes in EU countries. The three study programmes from EU countries mentioned are similar and comparable to the proposed short-cycle professional study programme, with the note that these programmes focus exclusively on ecological or organic plant production, whereas the proposed short-cycle professional study programme at the UAS in Knin, through its learning outcomes, covers sustainable plant and animal production.

Recommendations:

The Expert Panel recommends that the higher education institution continue to regularly monitor the alignment of learning outcomes with Level 5 of the Croatian Qualifications Framework (CroQF) and the European Qualifications Framework (EQF), as well as with labour market needs and developments in the profession, particularly in the field of sustainable agriculture and environment. It is also recommended to periodically review the connection between learning outcomes, competencies, and teaching content, and to make minor adjustments where necessary, in order to maintain the recognised quality and contemporary relevance of the study programme.

Quality grade:

Fulfilled

2.3. The intended course outcomes are aligned with the intended learning outcomes at the level of the study programme.

Analysis:

The proposed short professional study programme includes a total of 20 compulsory and 5 elective courses. During their studies, in addition to the 20 compulsory courses, students are required to pass two (out of the proposed five) elective courses. For all proposed courses, the objectives of the courses and learning outcomes are defined, and the relationship between the learning outcomes of each course and the learning outcomes of the study programme is specified.

The proposed course learning outcomes are clear and detailed, and based on them it can be concluded what is expected from students upon successful completion, i.e. passing of each individual course.

The learning outcomes at the course level are aligned with the learning outcomes of the study programme; however, it is not explained how the higher education institution intends to verify the consistency of the stated learning outcomes.

The development of generic skills and professionally specific competencies is an essential part of the study programme, and therefore of each course, as it enables better preparation of students for functioning in the labour market. In the proposed study programme “Sustainable Agriculture and Environment,” 10 general (generic) competencies and 19 professionally specific competencies are proposed, which students are expected to acquire upon completion of the study programme. Table 2 of the study programme proposal presents the relationship between course learning outcomes and programme learning outcomes, and from the stated learning outcomes at both the programme and course levels, it is clear how students will achieve all proposed generic and professionally specific competencies.

Recommendations:

The Expert Panel recommends that, in accordance with the established rules of the UAS, verification of the alignment between learning outcomes at the level of the study programme and learning outcomes at the level of individual courses should be carried out.

Quality grade:

Fulfilled

2.4. The study programme content allows students to achieve all the intended learning outcomes.

The content and structure of the short-cycle professional study programme “Sustainable Agriculture and Environment” ensure horizontal and vertical mobility of students within

the national and European higher education area, in accordance with Level 5 of the Croatian Qualifications Framework (CroQF) and the corresponding Level 5 of the European Qualifications Framework (EQF). Horizontal mobility is enabled through the application of the standardised ECTS system and the comparability of learning outcomes with similar short-cycle professional study programmes in the biotechnical field in the Republic of Croatia and European Union countries, which facilitates transfers to similar study programmes and the recognition of earned ECTS credits.

Vertical mobility is ensured through the alignment of the programme with national and European educational standards, enabling students, after completion of the programme, to continue their education in undergraduate professional and university study programmes, with the possibility of additional bridging courses being required by higher education institutions. The study programme further supports international mobility through the application of the ECTS system and alignment with the Bologna principles, enabling participation in programmes such as Erasmus+ and the completion of part of the studies or professional practice at foreign institutions.

The programme clearly defines generic and professional competencies acquired upon completion of the studies, with planned learning outcomes aligned with labour market needs and strategic documents at national and European levels. The course content, planned teaching units, and assessment methods are aligned with an outcome-based approach, and the matrix linking course learning outcomes with programme learning outcomes confirms a satisfactory level of consistency and coverage of the planned competencies.

The sequence of courses across four semesters, together with clearly defined prerequisites for enrolling in individual courses, ensures a logical progression in the acquisition of learning outcomes and the gradual development and deepening of previously acquired knowledge. A significant share of field-based teaching and a multi-stage professional practice model (I–III) enables students to integrate theoretical knowledge into real working environments, thereby further enhancing employability and preparation for direct entry into the labour market in the field of sustainable and ecological agriculture.

The study programme covers a broad range of topics relevant to sustainable agriculture and environmental protection, including agroecology, fundamentals of plant and animal production, plant protection, animal health and welfare, circular bioeconomy, legal regulations in organic production, digital technologies, and agricultural business management. Such a curriculum structure, in combination with the planned mobility mechanisms, ensures the recognisability of the qualification, the possibility of further education, and the competitiveness of graduates within the national and European higher education area and labour market.

Recommendations:

It is recommended that the higher education institution continue to regularly review and, where necessary, revise course content in order to ensure it remains fully aligned with the intended learning outcomes and Level 5 of the Croatian Qualifications Framework (CroQF), while maintaining a logical progression throughout the study programme. It is also recommended to continuously monitor opportunities for horizontal and vertical mobility, as well as alignment with practices in the national and European higher education area (including Erasmus+ and related programmes), in order to maintain a high level of progression and graduate employability.

Quality grade:

Fulfilled

2.5. ECTS distribution is aligned with the anticipated actual student workload.

Analysis:

The distribution of ECTS credits in the short professional study programme “Sustainable Agriculture and Environment” is aligned with the anticipated student workload and adheres to the principle that 1 ECTS credit corresponds to 30 working hours, including contact hours and various forms of independent work (preparation, mid-term exams, final exams, assignments, and professional practice). The total workload of 120 ECTS credits is distributed over two years of study, 60 ECTS credits per year. In the implementation plans and course descriptions, ECTS credits per course, forms of teaching, and corresponding student workload are clearly indicated, enabling a transparent overview of the total student workload.

For part-time students, minimum attendance requirements for direct teaching are prescribed (at least 50% of the planned contact hours per course), and methods for compensating absences are clearly defined through independent assignments under the mentorship of course instructors and the use of digital forms of teaching, while maintaining the same ECTS workload as for full-time students. In the implementation and course plans, the methods for fulfilling study obligations (mid-term exams, final exams, seminar and project assignments, practical and field work, and professional practice) are described for both groups of students, thereby ensuring that the allocated ECTS credits realistically reflect their total workload and that the quality of the study programme is comparable regardless of student status.

Recommendations:

It is recommended to periodically verify whether the number of ECTS credits corresponds to the actual time students invest in courses (e.g., through surveys) and, where necessary, to slightly adjust credits or workload in order to make them even more realistic.

Quality grade:

Fulfilled

2.6. Student/professional practice is an integral part of the study programme (if applicable).

Analysis:

During the meetings of the Expert Panel with the teaching staff of the UAS Marko Marulić and representatives of the business sector, a high level of agreement was established regarding the importance of practical teaching and professional practice, particularly within the short professional study programme “Sustainable Agriculture and Environment.” At the same time, representatives of the business sector expressed a clear willingness and interest in actively involving future students in the work processes of their companies, thereby further strengthening the connection between the study programme and labour market needs.

Student practice is included in the proposed UAS study programmes with clearly defined learning outcomes and an appropriate number of ECTS credits. The implementation of practical activities is ensured in cooperation with relevant stakeholders and industry partners, and takes place under the mentorship of internal and external mentors through projects, field teaching, and professional tasks integrated into the teaching process.

Monitoring of the implementation of professional practice at the UAS Marko Marulić is carried out continuously and enables timely adjustments in order to ensure quality. Examples of changes in mentors or internship placements, as provided by instructors during discussions with the Expert Panel, confirm the flexibility and focus on the quality of this component of education.

According to statements from lecturers and representatives of the business sector, the professional practice carried out at the UAS Marko Marulić plays a key role in aligning learning outcomes with employers’ needs. This significantly contributes to increasing the employability of graduates, as professional practice enables employers to directly assess students’ acquired competencies and professional potential during their education.

Recommendations:

The Expert Panel recommends the continued development and formalisation of cooperation with economic entities, as well as continuous monitoring and improvement of the implementation of professional practice, with the aim of maintaining a high level of quality in study programmes and their ongoing alignment with the development needs of the economy and society.

Quality grade:

Fulfilled

2.7. If the completion of the study programme allows students access to a regulated profession, the programme is aligned with national and European regulations and the recommendations of national and international professional associations.

Analysis:

The proposed study programme does not give access to regulated professions, which is why this standard is not applicable.

Recommendations:

Quality grade:

III. Teaching process and student support

3.1. Admission requirements and criteria as well as the admissions procedure are clearly defined and transparent, and guarantee that students will possess the necessary prior knowledge.

Analysis:

Upon reviewing the submitted documentation, the Expert Panel concluded that the admission requirements and criteria, as well as the admission procedure itself for the short professional study programme Sustainable Agriculture and Environment, are clearly defined and publicly available. This information is published in the regulations and announcements related to admissions for the new academic year. The application process is conducted through the National Information System for Applications to Higher Education Institutions (NISpVU), which provides easy access for all interested students.

The higher education institution states that admission to this programme requires possession of a secondary school qualification at least at Level 4.1 of the Croatian Qualifications Framework (CroQF), while passing the State Matura examination is not a requirement. The Expert Panel determined that the submitted documentation also clearly specifies the nature of the evidence that applicants are required to submit during the admission process, enabling a transparent verification of compliance with the admission requirements. At the same time, a lack of standardized criteria for assessing candidates based on the type of secondary school they completed was identified, making it more difficult to objectively assess their preparedness for the study programme.

The Expert Panel also found that the procedures for the recognition of prior learning, as well as foreign higher education qualifications, are clearly defined and publicly available.

The study structure and student obligations are regulated in accordance with the Statute of the University of Applied Sciences and the Regulations on Studies of the University of Applied Sciences, as well as the applicable legal framework, thereby ensuring transparency and compliance with relevant regulations.

Recommendations:

The Expert Panel proposes that, during the admission process, a clear ranking system for candidates be introduced based on the type of secondary school they have completed, with preference given to graduates of agricultural-technical and related secondary schools, as these schools provide foundational knowledge in general subjects such as biology and chemistry.

The Expert Panel recommends that the higher education institution direct its promotional activities specifically toward agricultural-technical and related vocational secondary schools, particularly in the Knin region, in order to increase students' awareness of the opportunities for enrolment in this short professional study programme.

Quality grade:

Fulfilled

3.2. The planned teaching methods guarantee student-centred teaching and the achievement of all intended learning outcomes.

Analysis:

In the short-cycle professional study programme Sustainable Agriculture and Environment, the planned teaching methods are clearly defined, diverse, and consistently aligned with the learning outcomes of both the study programme and individual courses, thereby ensuring student-centered learning and the acquisition of practical professional competencies. Teaching is organized through lectures, seminars and workshops, laboratory and field exercises, practical work, project assignments, independent student work, and various forms of collaborative and group work, with an emphasis on active student participation, solving real professional problems, and applying knowledge in practice. Student workload is planned to be balanced throughout the day, week, semester, and academic year, with a clearly defined distribution between contact hours and independent activities. This structure enables students to achieve all intended learning outcomes at an appropriate and manageable pace. The higher education institution provides appropriate support to different groups of students through a mentoring system, a student counselling service, and accommodations for students from vulnerable and underrepresented groups, including students with disabilities, who are assigned a special mentor or coordinator when necessary. The University of Applied Sciences has also developed a separate implementation plan for part-time students, which clearly defines the formats and

schedule of instruction, the minimum attendance requirements for the contact-based component of teaching, and the possibilities for participation through digital platforms and compensation for absences. This ensures the comparability of learning outcomes and equal quality standards in relation to full-time students. The teaching process is strongly supported by a well-developed digital environment that includes an e-learning system (Moodle), tools for synchronous and asynchronous communication, as well as administrative and information systems. This enables students to have continuous access to learning materials, monitor their academic obligations, and participate more flexibly in teaching activities, particularly part-time students. The quality of teaching delivery and teaching methods is monitored and evaluated through regular student surveys and other forms of feedback. The results are systematically used within the internal quality assurance system for the continuous improvement of teaching approaches, further confirming that the planned teaching methods ensure the achievement of all intended learning outcomes.

Recommendations:

It is recommended to continue systematically involving students in the design and improvement of teaching methods (e.g., through focus groups or thematic workshops with students), in order to further align the planning and delivery of instruction with their needs and experiences, while maintaining the required learning outcomes and the expected level of academic rigour.

Quality grade:

Fulfilled

3.3. The higher education institution proves that adequate support for future students is ensured.

Analysis:

Based on the review of the submitted documentation and during the site visit to the higher education institution, the Expert Panel determined that future students of the short-cycle professional study programme Sustainable Agriculture and Environment are provided with various forms of academic, administrative, and technical support. The study year mentoring system is particularly noteworthy, as it enables students to maintain regular and direct communication with teaching staff and to receive timely guidance regarding their study obligations.

The Panel found that course instructors are accessible and supportive to students throughout the duration of their courses, while administrative and technical support is available through the student affairs office and technical services, in accordance with the institution's internal regulations. During the site visit, it was confirmed that the University

of Applied Sciences employs a sufficient number of qualified professional, administrative, and technical staff in relation to the number of students, thereby enabling the effective organization and delivery of the study programme.

The Expert Panel notes that the institution's website is well organized, up to date, and available in English, which facilitates navigation and access to information for prospective international students. The website contains information on activities aimed at student integration and professional development, including Career Day and Open Day events.

The Panel also found that students have formal access to a Student Counselling Center, which provides career, psychological, and legal counselling services, as well as accommodations for students with disabilities. However, during discussions, it was observed that students rarely make use of these services and seldom complete surveys, despite promotional activities undertaken to encourage participation. The highest level of student engagement is achieved through the Student Council, which serves as the primary communication channel between students and the institution's management.

Students have access to adequate infrastructure and relevant learning materials through the University of Applied Sciences Library, which contributes positively to the quality of the study programme and the overall student experience.

Recommendations:

The Expert Panel recommends that the University of Applied Sciences, in cooperation with the Student Council, improve communication with students through short monthly updates (email, social media, Moodle) and presentations at the beginning of each semester. The aim is to increase the visibility of the Student Counselling Center, encourage participation in surveys for identifying vulnerable groups, and ensure timely use of available support services. Such an approach also enables the collection of more reliable data needed for further improvement of student standards.

Quality grade:

Fulfilled

3.4. An objective and consistent assessment and grading of student achievements is planned in order to ensure acquisition of intended learning outcomes.

Analysis:

At the University of Applied Sciences, a systematically organized, objective, and consistent system of assessing and evaluating student achievement has been established. It is fully aligned with the intended learning outcomes of the proposed study programme and individual courses. Assessment procedures are regulated in detail by institutional acts (regulations on studies, grading, professional practice, preparation and defence of the final thesis, mobility, teaching evaluation, and disciplinary responsibility) and are implemented

through course syllabi, which are made available to students in a timely manner via the Moodle system before the start of classes. For each course, the forms of knowledge assessment and evaluation activities are clearly defined (class participation, seminar papers, written exams or continuous assessment; mid-term exams, practical and field work, project work, independent assignments, oral exams), as well as their weighting in the final grade and the corresponding grading criteria. The share of class participation is limited to a relatively small percentage and supported by measurable forms of engagement, thereby reducing subjectivity and ensuring fair grading. The terminology of assessment in the study documentation is standardized, particularly in distinguishing between written examinations and continuous assessment (mid-term exams), with a clear indication that successfully passed mid-term exams may replace the written exam. In order to ensure a comprehensive verification of the intended learning outcomes, a mandatory oral examination has been introduced in a large number of courses, with a clearly defined share in the final grade. It assesses in-depth understanding, the ability to explain, analyse, connect concepts, and present content in a well-argued manner. In courses with a strong practical and field component, mandatory practical, laboratory, and field activities as well as project assignments are included. These carry a significant portion of the grade and are specifically designed to assess the application of knowledge and skills in real or simulated professional situations. For part-time students, special implementation plans have been developed with clearly defined minimum attendance requirements for direct instruction, options for compensating absences (independent assignments under the mentorship of course instructors, use of digital platforms), and the same assessment criteria as for full-time students. This ensures transparency, comparability, and consistent application of grading standards regardless of student status. The final verification of learning outcomes is ensured through structured professional practice and the preparation and defence of the final thesis. At the institutional level, procedures are clearly defined (topic registration, conducting research or a professional assignment, writing, mentoring, evaluation, and defence) as well as assessment forms, thereby ensuring consistent practice and a high level of transparency in final grading. The system enables students to receive timely feedback, access to their results, and the right to appeal. Through workshops for teaching staff and regular monitoring of teaching quality, the consistency and quality of student assessment procedures are further improved.

Recommendations:

It is recommended to regularly monitor how individual forms of assessment (participation, mid-term exams, written and oral exams, practical and project work) contribute to the achievement of learning outcomes and, based on these insights, periodically adjust their weighting and assessment criteria in order to make the system as objective as possible and better aligned with the qualification profile.

It is recommended in Chapter 12, methods for assessing acquired learning outcomes for each course or other study requirement of the proposed study programme, PBL (Problem-Based Learning) be removed, as it is listed as an assessment method for acquired learning outcomes. However, PBL is a teaching method and is not used for assessment.

Quality grade:

Fulfilled

IV. Teaching resources and infrastructure

4.1. The higher education institution has ensured adequate teaching capacities to deliver the study programme and achieve the intended learning outcomes.

The Expert Panel determined that the University of Applied Sciences Marko Marulić in Knin has adequate teaching capacity required for the delivery of the short-cycle professional study programme Sustainable Agriculture and Environment. Teaching is delivered by staff employed full-time, appointed to teaching titles in accordance with applicable regulations, with limited and purposeful involvement of external associates for specific forms of instruction.

At the time of submitting the application, the University of Applied Sciences employed 23 full-time teachers and associates (of whom 22 are employed on a permanent basis and 1 in a cumulative employment relationship), as well as an additional 12 external associates. The teaching staff hold the following academic titles: professor of professional studies with tenure, professor of professional studies, full professor with tenure, professor emeritus, senior lecturer, lecturer, and senior lecturer / adjunct assistant professor. Out of 23 permanently employed teaching staff, 7 hold a doctoral degree, 1 holds a master's degree, while 6 lecturers and 1 employee (laboratory technician) are enrolled in doctoral post-graduate studies.

Full-time teachers deliver 73% of all forms of direct teaching within the study programme, with 85.54% of teaching delivered in the first year, 81.01% in the second year, and 65.09% in the third year of the study programme. The teacher-to-student ratio is 1:5.29, which is significantly more favourable than the legally permitted ratio of 1:30. The total annual teaching workload of individual staff members does not exceed 20% of the prescribed standard.

This meets the legal requirement ensuring the stability of the teaching process and continuity in the delivery of the study programme. Based on the submitted data, it is evident that both the total annual workload of all teaching staff and the individual annual workload are in line with prescribed standards and enable the high-quality delivery of the study programme.

For the study programme in question, a sufficient number of teaching staff has been ensured in relation to the planned number of enrolled students, which enables high-quality student engagement, the implementation of practical teaching, exercises and seminars, as well as effective monitoring of the achievement of learning outcomes.

The Expert Panel assesses that the structure of the teaching staff, their professional qualifications, and available teaching workload enable the achievement of all intended learning outcomes of the study programme, without any identified risks to the quality of teaching delivery.

The Expert Panel concludes that the teaching capacities are appropriate for the level and type of the study programme and are in line with applicable quality standards for the initial accreditation of the short-cycle professional study programme.

Recommendations:

Continued monitoring of teaching staff workload and further strengthening of internal teaching capacities in line with the future development of the study programme.

Quality grade:

Fulfilled

4.2. The qualifications and professional experience of external associates are appropriate for the delivery of the study programme and the achievement of the intended learning outcomes.

The Expert Panel determined that the external associates involved in the delivery of the study programme Sustainable Agriculture and Environment have been selected in accordance with applicable regulations and that their qualifications and work experience correspond to the course content and the level of study. External associates are primarily engaged in courses that require specific professional knowledge and practical experience, thereby further contributing to the applied and professional character of the study programme.

The submitted documentation shows that external associates possess appropriate formal education, professional expertise, and relevant professional experience in the fields of agriculture, environmental protection, legislative regulation, and related professional areas. Their involvement in teaching is aimed at strengthening students' practical competencies and linking theoretical knowledge with practice.

The Expert Panel determined that the share of teaching delivered by external associates does not exceed the permitted limits and that the core delivery of the study programme is based on permanently employed teaching staff. This ensures the stability of the teaching process, while external associates have a complementary and clearly defined role in the implementation of the programme.

Based on the review of the structure of the teaching staff and the distribution of teaching responsibilities, the Expert Panel assesses that the qualifications and work experience of

external associates enable the high-quality delivery of courses and the achievement of the intended learning outcomes of the study programme.

The Expert Panel concludes that the qualifications and work experience of external associates are appropriate to the objectives and learning outcomes of the study programme and are in line with the quality standards for initial accreditation.

Recommendations:

It is recommended to continue ensuring that external associates are engaged selectively and purposefully, particularly in areas where they can further enhance the professional and practical dimension of the study programme.

Quality grade:

Fulfilled

4.3. The premises, equipment and entire infrastructure (classrooms, laboratories, library, etc.) are appropriate for the delivery of the study programme and ensure the achievement of the intended learning outcomes.

Based on the review of the submitted documentation and the site visit to the University of Applied Sciences Marko Marulić in Knin, the Expert Panel determined that the institution has adequate spatial capacity and infrastructure for the delivery of the study programme Sustainable Agriculture and Environment. Teaching is conducted in appropriately equipped classrooms that enable the implementation of lectures, seminars, and exercises in accordance with the curriculum.

The University of Applied Sciences provides a spatial capacity of 3.6 m² per student in teaching areas, thereby meeting the minimum required spatial standards for the delivery of the study programme. Classrooms and other teaching facilities are equipped with basic teaching and IT equipment necessary for modern instruction, including audiovisual equipment and computer resources.

The Expert Panel determined that the higher education institution also has additional infrastructure relevant to the implementation of the short professional study programme, including spaces for administrative and student support, as well as library resources available to both students and teaching staff. The library provides access to basic professional literature and relevant information sources necessary for the execution of teaching activities and students' independent study.

Based on the available equipment and facilities, the Expert Panel assesses that the existing infrastructural conditions enable the achievement of the intended learning outcomes of the study programme.

The space, equipment and the entire infrastructure are appropriate for the delivery of the study programme and ensure achievement of the intended learning outcomes.

Recommendations:

It is recommended to continuously improve equipment and teaching facilities, particularly in the area related to practical instruction and the application of modern technologies in agriculture, in line with the development of the study programme and the needs of students.

Quality grade:

Fulfilled

4.4. The library premises and resources, as well as access to additional services ensure the availability of literature and library services for the delivery of the study programme.

Based on the review of the submitted documentation and the site visit to the higher education institution, the Expert Panel determined that the University of Applied Sciences Marko Marulić in Knin provides library resources and library services necessary for the delivery of the study programme Sustainable Agriculture and Environment. Students and teaching staff have access to a library that holds basic professional and scientific literature relevant to the fields of agriculture, environmental protection, and related disciplines.

The library ensures the availability of compulsory and recommended literature prescribed by the curriculum and enables students to use library services for independent study, preparation of seminar papers, and exam preparation. In addition to printed sources, students also have access to additional information resources, including electronic sources and online databases available through institutional systems.

The Expert Panel determined that the library resources are aligned with the level and type of the short-cycle professional study programme and enable the achievement of the intended learning outcomes. The library and information resources are available to students during the working hours of the higher education institution's services, and teaching staff actively encourage students to use the available literature and information sources within the teaching process.

The Expert Panel concludes that the library, its facilities, and access to additional resources ensure adequate availability of literature and library services for the purposes of delivering the study programme.

Recommendations:

It is recommended to continuously update the library collection, particularly in the areas of contemporary and interdisciplinary topics related to sustainable agriculture and environmental protection, and to further strengthen the availability of electronic information sources.

Quality grade:

Fulfilled

4.5. The higher education institution ensures the availability of the necessary financial resources to organise the activities and provide a high quality of delivery of the proposed study programme.

Based on the review of the submitted financial documentation and revenue and expenditure projections, the Expert Panel determined that the financing of the study programme Sustainable Agriculture and Environment is planned exclusively from tuition fee income, without reliance on state budget funds. The higher education institution has clearly presented the structure of revenues and expenditures in its financial plan and has allocated sufficient funds for the quality implementation of the study programme.

The submitted financial projection shows that the planned costs of delivering the study programme, including expenses for teaching delivery, engagement of teaching staff and external associates, use of existing infrastructure, and organization of administrative and student support, have been realistically estimated and are in line with the planned number of enrolled students. Tuition fee income has been estimated based on the defined enrolment quota and is sufficient to cover all planned costs of the study programme.

The Expert Panel determined that the financial model of the study programme is aligned with the institutional capacities of the University of Applied Sciences and does not jeopardize the stability of existing study programmes. The higher education institution has organizational and financial mechanisms in place that enable regular monitoring of the financial sustainability of the programme and timely adjustments in the event of changes in student enrolment numbers.

The Expert Panel concludes that the higher education institution ensures the necessary financial resources for the organization of operations and the quality implementation of the planned study programme through tuition fee income, and that the financial sustainability of the programme is satisfactorily secured.

Recommendations:

It is recommended to regularly monitor financial indicators, particularly in the initial years of programme implementation, in order to ensure the long-term stability and quality of the study programme's delivery.

Quality grade:
Fulfilled

AMEND THE STUDY PROGRAMME

Rationale:

OPINION OF THE EXPERT PANEL AFTER AMENDMENTS

The Expert Panel, after reviewing the fully revised documentation and the accompanying standards, determines that the new version of the study programme systematically incorporates all key changes arising from the initial report and the revised application, and that the quality standards relevant for issuing a positive opinion in the initial accreditation procedure for the short-cycle professional study programme Sustainable Agriculture and Environment have been met. The study programme is now more clearly profiled and aligned with the mission and strategic goals of the University of Applied Sciences Marko Marulić in Knin, as well as with the development needs of Šibenik-Knin County and areas of special state concern, particularly in terms of developing professional staff for sustainable and ecological agriculture and environmental protection.

At the level of standards 2.2, 2.3, and related criteria, the key changes include: more clearly defined learning outcomes at CroQF Level 5 through more precisely formulated generic and professional competencies (LO1–LO17), as well as an improved matrix linking course learning outcomes with programme learning outcomes; the introduction and detailed elaboration of core courses in the fields of chemistry, soil management (pedology), environmental protection, legal regulation, plant protection, animal health and welfare, digital technologies, and business management, thereby ensuring more comprehensive coverage of fundamental knowledge required for sustainable agriculture. In addition, implementation plans for all courses have been further elaborated, with clearly described forms of teaching, methods of monitoring and assessment, student obligations, and alignment of workload with allocated ECTS credits. The system of student practice has been divided into three levels (Student Practice I–III) with formalized mentoring supervision, standardized forms, and clearly defined learning outcomes.

Based on the recommendations of the Expert Panel, the area of part-time study has also been regulated through a special implementation plan: the same mandatory and elective courses and the same number of ECTS credits as for full-time students have been structured, while organizational adaptations relate to the forms and dynamics of teaching delivery, a greater emphasis on independent work, the use of digital platforms, and clearly defined attendance thresholds. This clearly confirms that the differences between full-time and part-time study are purely organizational, while learning outcomes, professional standards, and study quality are aligned for both groups of students.

Based on the aforementioned revisions, the Expert Panel assesses that the revised study programme, in its current form, ensures a recognizable professional profile of graduates,

realistic employability on the labour market, and an appropriate basis for horizontal and vertical mobility within the national and European higher education area. The remaining recommendations (monitoring workload and ECTS credits, improving student surveys, strengthening internal teaching and library resources, and targeted communication toward agricultural-technical schools) are considered guidelines rather than conditions. The Panel therefore issues a positive final opinion and recommends granting accreditation for the implementation of the short professional study programme Sustainable Agriculture and Environment at the University of Applied Sciences Marko Marulić in Knin, in accordance with applicable regulations and standards of the Agency for Science and Higher Education.

FINAL RECOMMENDATION OF THE EXPERT PANEL MEMBERS:

a. **ISSUE A LICENSE, rationale**

The members of the Expert Panel unanimously propose the issuance of accreditation for the implementation of the short professional study programme Sustainable Agriculture and Environment at the University of Applied Sciences “Marko Marulić” in Knin, as all applicable quality standards have been met and the revised study programme - through clearly defined EQF Level 5 learning outcomes, an appropriate student workload, a well-designed teaching process, professional practice, and available resources - ensures the acquisition of relevant professional and generic competencies, realistic employability and student mobility, as well as a contribution to the development needs of the region and the higher education system of the Republic of Croatia.

b. **DENY THE REQUEST FOR ISSUING A LICENSE, rationale:**

ANNEXES

1. Quality grade summary - tables

<i>Quality grade by assessment area</i>			
<i>Assessment area</i>	Not fulfilled	Partially fulfilled	Fulfilled
<i>I. Internal quality assurance</i>			X
<i>II. Study programme</i>			X
<i>III. Teaching process and student support</i>			X
<i>IV. Teaching resources and infrastructure</i>			X

<i>Quality grade by standard</i>			
<i>I. Internal quality assurance</i>	Not fulfilled	Partially fulfilled	Fulfilled
1.1. Clear justification for the introduction of the new study programme has been provided with regard to the mission and strategic goals of the higher education institution, as well as economic and societal needs.			X
1.2. The study programme has undergone an appropriate internal quality assurance process and has been formally approved by the higher education institution.			X
1.3. The higher education institution will collect, analyse and use relevant data for the effective management and continuous enhancement of the study programme in accordance with the published quality assurance policy.			X
1.4. The higher education institution informs the public about the study programmes it offers, as well as plans to offer new programmes, i.e. change made to existing ones.			X

<i>Quality grade by standard</i>			
<i>II. Study programme</i>	Not fulfilled	Partially fulfilled	Fulfilled
2.1. The proposed study programme is compatible with the qualification standard in the Croatian Qualifications Framework Register.			Not applicable.
2.2. The intended learning outcomes at the level of the study programme are aligned with the competences a student should gain by completing the study programme, as well as with the CroQF and EQF level.			X
2.3. The intended course outcomes are aligned with the intended learning outcomes at the level of the study programme.			X
2.4. The study programme content allows students to achieve all the intended learning outcomes.			X
2.5. ECTS distribution is aligned with the anticipated actual student workload.			X
2.6. Student/professional practice is an integral part of the study programme (if applicable).			X
2.7. If the completion of the study programme allows students access to a regulated profession, the programme is aligned with national and European regulations and the recommendations of national and international professional associations.			Not applicable.

<i>Quality grade by standard</i>			
<i>III. Teaching process and student support</i>	Not fulfilled	Partially fulfilled	Fulfilled
3.1. Admission requirements and criteria as well as the admissions procedure are clearly defined and transparent, and guarantee that students will possess the necessary prior knowledge.			X
3.2. The planned teaching methods guarantee student-centred teaching and the achievement of all intended learning outcomes.			X
3.3. The higher education institution proves that adequate support for future students is ensured.			X
3.4. An objective and consistent assessment and grading of student achievements is planned in order to ensure acquisition of intended learning outcomes.			X

<i>Quality grade by standard</i>			
<i>IV. Teaching resources and infrastructure</i>	Not fulfilled	Partially fulfilled	Fulfilled
4.1. The higher education institution has ensured adequate teaching capacities to deliver the study programme and achieve the intended learning outcomes.			X
4.2. The qualifications and professional experience of external associates are appropriate for the delivery of the study programme and the achievement of the intended learning outcomes.			X
4.3. The premises, equipment and entire infrastructure (classrooms, laboratories, library, etc.) are appropriate for the delivery of the study programme and ensure the achievement of the intended learning outcomes.			X
4.4. The library premises and resources, as well as access to additional services ensure the availability of literature and library services for the delivery of the study programme.			X
4.5. The higher education institution ensures the availability of the necessary financial resources to organise the activities and provide a high quality of delivery of the proposed study programme.			X

2. Site visit protocol

**Initial accreditation
of the short-cycle professional study programme
Sustainable Agriculture and Environment
University of Applied Sciences Marko Marulić**

SITE VISIT PROTOCOL

Venue

*University of Applied Sciences Marko Marulić
Ulica Kralja Petra Krešimira IV 30, 22300 Knin*

	Wednesday, 3rd December 2025
10:00 – 10:45	Meeting with the management (no presentation)
10:45 – 10:55	Break
10:55 – 11:40	Meeting with the Committee for Study Programme Development
11:40 – 11:50	Break
11:50 – 12:50	Meeting with teachers (employed full time and external associates – without the management of HEI)
12:50 – 14:30	Lunch
14:30 – 15:30	Tour of the HEI (library, classrooms, IT room, Student Office)

15:30 - 16:15	Meeting with external stakeholders (representatives of professional organisations, business sector/industry sector, professional experts, non-governmental organisations, external lecturers)
16:15 - 16:30	Organisation of additional meeting on open questions, if needed
16:30 - 16:45	Internal meeting of Expert Panel members (preparation for the exit meeting)
16:45 - 17:00	Exit meeting