# SELF-EVALUATION REPORT



#### Self-evaluation report

Name of evaluated higher education institution: Križevci University of Applied Sciences Name of university of which evaluated higher education institution is constituent unit: N/A

Year of establishment: 1998

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#### INTRODUCTION

Križevci University of Applied Sciences (KUAS) is the successor of the Križevci College of Agriculture (KCA), which was founded in 1998 by the Decree of the Government of the Republic of Croatia ("Official Gazette", No. 40/98, 76/05, 57/07 and 119/13) as an independent public higher education institution. The establishment of the KCA, today KUAS, is based on the tradition of the oldest agricultural college in this part of Europe, which began its work on November 19, 1860 as Royal Agriculture and Forestry College and from then until today, the continuity of education in agriculture was maintained, which during this long period took place in different organizational forms.

With the establishment of the KCA in 1998, the Križevci Agricultural Institute for Vocational Education and Scientific Work, where two-year study programs in the field of agriculture were conducted, ceases to operate. The KCA created new study programs in 1998 and switched from the previous two-year professional study to a three-year one. Already in 2005, KCA joined the efforts to develop higher education in the Republic of Croatia based on the principles of the Bologna Declaration and thus become part of a single European higher education area, and created new study programs in accordance with the Bologna Declaration. In addition to the undergraduate professional study program (today the professional undergraduate study), a specialist graduate professional study program (today the professional graduate study) was also created, thus making it possible to study in two cycles (3+2). The ECTS credit system was introduced and the introduction of the quality assurance system began. KCA received a permit for the undergraduate, now professional undergraduate study of Agriculture, in the biotechnical scientific area, field of agriculture (level 6 according to the Croatian Qualification Framework Act (HKO, "Official Gazette", No. 22/13, 41/16, 64/18, 47/20, 20/21)) with specific fields of study Plant production, Zootechnics and Farm Management (Official code: UP/I-602-04/05-16/159; Reg.No.: 533-07-05-2). and specialist graduate vocational study (today professional graduate study) Agriculture (two years, 120 ECTS credits, level 7.1) with one specific field of study Sustainable and organic agriculture (Official code: UP/I-602-04/05-16/802; Reg.No.: 533-07-05-2), in the same scientific area and field. In 2008, a permit was obtained for the professional graduate study Management in Agriculture (two years, 120 ECTS credits, level 7.1 st) in the scientific area of social sciences, scientific field of economics. The professional undergraduate study in Agriculture is conducted for students in full-time and parttime status, as well as the professional graduate study in Agriculture, and the professional graduate study in Management in Agriculture only for students in part-time status. With the aim to continuously improve the existing programs and harmonize them with modern European achievements in higher education, KCA submitted an application to obtain the TEMPUS project for further improvement of study programs. At the end of 2004, KCA was approved the TEMPUS project entitled Development of a professional BSc and MSc Course and Short Professional Courses in Farm Production and Management JEP-19052 -2004. The main goal of the Project was the development of the study program of professional and specialist graduate professional studies in Agriculture and the training of the teaching staff in education based on competences (competence-based learning). The partners in this project were the prestigious European universities Harper Adams University from Great Britain and Van Hall Larenstein University of Applied Sciences from the Netherlands. The existing study program of the former KCA, approved in 2005, was used as a starting point for improving the study program. After researching the needs of the labor market and evaluating the program of former KCA graduates and analyzing the results of student evaluations as part of the implementation of the quality assurance system, it was concluded that it is necessary to make only minor changes in the existing study program in terms of developing the skills necessary for the acquisition of competencies. Changes in the program were adopted by the Teachers' Council of KCA in July 2008, and as part of the changes, the name of the course *Farm Management* was changed to *Management in Agriculture*.

The basic feature of KUAS's study programs is a high proportion of exercises and professional training (60%), for which KUAS has excellent conditions (well-equipped laboratories and practicums, production area).

The scientific research and professional work of teachers is an important activity of KUAS, which is complementary to delivery of study programs, and students are involved in research as well. In addition, scientific and professional projects are increasingly important for the development of scientific research infrastructure, because equipment for laboratories and research is procured through them. KCA was registered in the Register of Scientific Institutions of the Ministry of Science and Education based on the Decision of the Ministry of Science and Technology of the Republic of Croatia dated June 11, 1999, Official code: 640-02/98-1/11, Reg.No.: 533-02-99-4. However, this Register was abolished with the entry into force of the new Higher Education and Scientific Activity Act (OG 119/22).

The service activities of the Agrochemical Laboratory and the Laboratory for Testing the Quality of Agricultural Reproductive Materials, experiments and expertise that are carried out for various clients are professional support for farmers and the economy, and at the same time make an important source of the university income. KUAS has also developed excellent cooperation with many companies, institutions and associations operating in the field of agriculture and rural development, as well as with many family farms. This cooperation, among other things, enables the implementation of the student's final professional practical training, mostly carried outside KUAS, as well as organization of quality field trips.

KUAS is extremely active in international cooperation through international projects, study visits and stays, exchange of teachers and students, participation of teachers in international gatherings and meetings, field trips, organization of student internships abroad, visits of experts from abroad, etc.

KUAS has rich experience in conducting lifelong learning programmes for farmers, as well as for other professions.

According to the Statutes, the activities of KUAS include:

- Higher education activity in accordance with the law governing higher education and scientific activity
- Carrying out highly specialized development work and scientific work in the field of KUAS activities, subject to conditions according to special regulations
- Organization and execution of adult education programs, in accordance with the law regulating adult education
- Publishing, library and IT activities for the needs of education, professional and scientific work and the sale of editions published by the university, related to the core activity of KUAS
- Research and development and advisory services, as well technical consulting in the field of KUAS activities

- Preparation of expert and scientific studies, reports and projects in the field of KUAS field of activity
- Organizing and holding scientific and professional gatherings and other forms of scientific and professional performances in the field of activities of KUAS
- Conducting demonstration experiments in the field of agriculture
- Conducting analyses in the field of agriculture and environmental protection: analysis of soil and sediments, plant material, fertilizers and soil amendments, analysis of indicators of the quality of agricultural products, analysis of animal feed, analysis of must and wine, analysis of the quality of agricultural reproductive material, other analyses in the field of agriculture and environmental protection and issuing reports and recommendations
- Agricultural production and sale of agricultural products obtained as part of KUAS's core activity during professional practice or implementation of scientific and professional projects
- Nursery and seed production and seed processing as part of KUAS's core activity, professional practical training or implementation of scientific and professional projects
- Services related to the student standard
- Accommodation service for animals related to the performance of KUAS activities

KUAS performs its activities in organizational units that are not independent legal entities but operate within KUAS.

The organizational units of KUAS are:

- Divisions
- Dean's office
- Quality assurance and improvement unit
- Common services

The division is an organizational unit of KUAS that carries out teaching, professional and scientific activities of KUAS. Within the divisions there are departments, practicums and laboratories that are common to both departments.

Divisions of the University are:

- Division for professional short studies and professional undergraduate studies
- Division for professional graduate studies

The departments of KUAS are:

- Department of Plant production
- Department of Zootechnics
- Department of Management in Agriculture

KUAS practicums are:

- Practicum for professional practical training and agricultural production

KUAS's laboratories are:

- Agrochemical laboratory
- Laboratory for testing the quality of agricultural reproductive material

KUAS is managed by the Management Board, the Dean and the Council of KUAS.

The Management Board of KUAS takes care of the legality of KUAS 's work. It has five members, of which the president and two members are appointed by the founder, one member

is appointed by the KUAS Council from among its members, and one member is appointed by the Workers' Council from among the employees.

The dean represents KUAS, is responsible for the legality of KUAS 's work, organizes and manages KUAS 's work and operations, and in his work has the rights and obligations of the director of the institution. The dean is assisted in his work by the vice deans. KUAS has a vice dean for teaching and students and a vice dean for business and development.

The Teachers' Council (Council of KUAS) consists of the dean, all teachers and associates employed at KUAS in full-time teaching or associate positions, one representative of other employees from the Common Services of KUAS that provide professional support to the work of KUAS (non-teaching staff) and student representatives. Student representatives make up 10% of the members of the KUAS Council. The Council of KUAS in its scope of work, among other things, decides on issues of teaching and professional and scientific activities of KUAS. KUAS has 55 employees, 28 of whom are teachers and 3 assistants. KUAS continually invests in the development and advancement of its teachers and currently employs 20 PhDs, of which 18 hold the highest teaching title (professor of professional studies with tenure or professor of professional studies), 3 are masters of science, 6 hold professional master degree, 2 are graduate engineers with recognition of professional master degree, so 8 masters of profession.

KUAS has an established quality assurance and improvement system (QAIS) established and maintained in accordance with the Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG).

In 2018, the re-accreditation procedure was successfully carried out, in which the former KCA was evaluated according to the following topics: Internal quality assurance and the social role of the higher education institution - high level of quality, Study programs, Teaching process and support for students, Teaching and institutional capacities - satisfactory level of quality, and Professional and /or scientific activity - minimum level of quality (Report), and received confirmation from the Ministry of Science that it meets all the conditions for higher education and scientific activities in accordance with current regulations (Confirmation). In June 2019, KUAS created an Action Plan for carrying out activities according to recommendations for improving quality in KUAS (Action plan), and in June 2021, KUAS submitted a report on the implementation of the Action Plan to the Agency for Science and Higher Education, the Commission for Subsequent Monitoring (Implementation of the plan). The Commission accepted the report, and the AZVO (Agency for science and higher education) Accreditation Council made a conclusion on accepting the Commission's opinion (Conclusion).

Despite good personnel and material conditions for the quality implementation of study programs, KCA has been facing a drastic decline in the number of students for the past few years. This can be explained by negative demographic trends and a continuous decrease in the number of graduates who apply for study programs, but also by the decreasing interest of young people in agriculture, while at the same time an increasing number of study programs which are offered in other fields that graduates consider more attractive. At the same time, in the Recommendations for educational enrollment policy and scholarship policy of the Croatian Employment Service, quotas for professional studies in the field of agriculture are not among those that should be reduced. In order to increase its attractiveness, KUAS created two new

study programs of professional short studies (2 years, 120 ECTS points, CQF level 5) in the field of agriculture, which have been submitted for accreditation.

## I. HIGHER EDUCATION INSTITUTION MANAGEMENT AND QUALITY ASSURANCE

## 1.1. The mission of a higher education institution guides the process of operational planning and the development of quality assurance processes

The higher education institution has a publicly available state-of-the-art mission, which represents the framework and direction of action, along with the defined values and objectives

The mission and vision of the Križevci University of Applied Sciences (KUAS) are publicly available on the institution's website (<u>Mission and Vision</u>) as basic documents that determine its goals, purpose, and direction. Alongside the mission and vision, the values that mark the activity of the institution are also defined.

The mission clearly defines the specific role of the higher education institution in performing higher education, scientific, and professional activities, and in contribution to the development of modern society. The mission positions the higher education institution in a domestic and international context, guides the development of the content of study and education programmes, and all activities of the higher education institution

The mission of KUAS is to prepare students for the future challenges of sustainable development in agricultural and food systems and rural areas, as well as for a competitive labor market. Through lifelong learning programs, applied research and service activities, it aims to contribute to the sustainable development of Croatian agriculture, rural areas, and society as a whole. The mission clearly defines the role of the institution in delivering higher education and contributing to societal development, and it directs the content of study programs and all other activities of the KUAS. The desired position of the institution in domestic and international contexts is defined by its vision. The vision of the KUAS is to be a center for professional higher education, lifelong learning, and applied research in agricultural and related fields, recognized internationally for high standards of quality in education and applied research.

#### Representatives from various stakeholder groups participate in the development and definition of the mission.

It was the members of the broader management of the KUAS who primarily contributed to developing and defining the mission and vision as part of the development strategy. They proposed the text of the mission based on various analyses, consultations with students and representatives from the economy, as well as local government. From these individual proposals, the final mission statement was defined and was subsequently subjected to public discussion as part of the development strategy discussion. The development strategy proposal,

including the mission, was adopted by the KUAS Council, which includes not only faculty members but also a representative of non-teaching staff and student representatives who make up 10% of the Council. The Management board of the KUAS adopted the development strategy, including the mission and vision.

#### The mission statement serves as a starting point for the strategic planning process and the setting of strategic goals

All strategic goals set in the Križevci University of Applied Sciences Development Strategy 2023-2028 (<u>Development strategy KUAS 2023-2028</u>) derive from the institution's mission as a basis for strategic planning and contribute to its achievement. The Development Strategy for the Križevci University of Applied Sciences for the period 2023-2028 defines the following goals in strategic areas:

- To further develop and continuously improve the quality assurance and enhancement system of the KUAS to ensure coherence and purposefulness, with transparent information about its activities.
- To continuously revise existing study programs and develop new ones, as well as lifelong learning programs aligned with labor market needs.
- To systematically improve the teaching process and student support.
- To ensure the continuous development of human resources and infrastructure for all the institution's activities and to use resources rationally.
- To enhance teaching quality through scientific and professional work by implementing research results into the teaching process and contributing to the development of the economy and society.
- To create conditions for incoming and outgoing student and staff mobility and strengthen the institution's capacity to participate in bilateral, cross-border, and transnational programs and projects.

Within the core strategic goals, specific objectives, activities, measurable indicators, and responsible individuals and bodies for implementing individual activities are defined, along with deadlines needed to achieve the set goals and tasks.

# 1.2. The higher education institution defined the internal organizational structure and processes that are managed responsibly, efficiently and effectively, and the higher education institution's stakeholders are included in the decision-making processes

The management of the higher education institution is based on the academic selfgovernance of higher education institutions and the autonomy of universities.

The autonomy of universities includes the regulation of internal organisation and management in accordance with the Act on Higher Education and Scientific Activity, its bylaws and regulations; identification of educational, scientific, artistic and professional

programmes; deciding on the acceptance of projects and international cooperation; financial autonomy under a programme agreement; and responsibility towards the social community.

The internal structure, management, jurisdiction and authority are established by the Statute as the fundamental act of the KUAS.

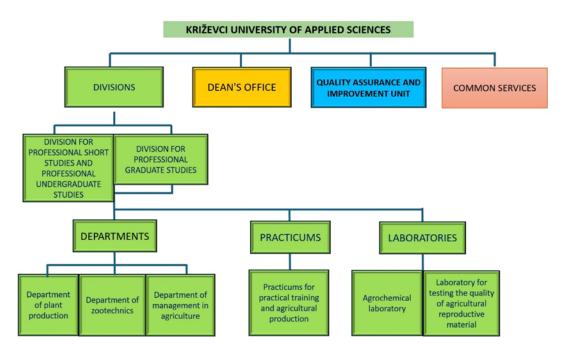


Figure 1. Organizational structure of KUAS

The KUAS is governed by the Management Board, the Dean, and the KUAS Council. The primary role of the Management Board is to ensure the legality of the institution's operations and the rational use of material and human resources. The Dean, among other responsibilities, organizes the operations of the KUAS and presides over the KUAS Council. Academic self-governance is evident in the roles, jurisdiction and authority of the KUAS Council and the Dean as the chairperson of the Council.

The KUAS Council has the following authority:

- It decides on teaching, scientific, and professional matters.
- It proposes study programs and adopts implementation plans for studies.
- It establishes additional criteria for teaching, associate, and professional positions.
- It conducts re-elections and elections for teaching, associate, and professional positions.
- It conducts re-elections and elections for title-holding teachers and associates.
- It provides the Dean with opinions on proposals for the KUAS's program contract.
- It gives opinions and proposals to the Management Board and Dean regarding the organization of work and conditions for the development of the institution's activities.
- It proposes the number of enrollment places for each study program to the Management Board.
- It proposes candidates for the position of Dean to the Management Board.

- It proposes a development strategy of KUAS to the Management Board.
- It proposes the establishment of new professional study programs to the Management Board.
- It proposes amendments to the Statute to the Management Board.
- It elects and appoints committees and boards in accordance with the Statute and other general acts of the KUAS.
- It performs other tasks in accordance with the Statute and other general acts of the KUAS.

The KUAS Council adopts general acts within its jurisdiction. Student representatives and representatives of non-teaching staff participate as members of the KUAS Council in decision-making process.

The higher education institution, using a quality assurance system and available information systems, collects, processes, analyses the data and generates reports using various methods. Based on the results of the analyses, further actions and improvements are planned using an approach based on risk and opportunities. The management and the competent authorities make informed decisions. Students and other stakeholders are involved in these processes

The quality improvement and assurance system (QIAS) of the KUAS analyzes the quality of all its activities. Data collection and analysis procedures are described in the Quality Assurance Manual (Manual), and some analyzed data includes: the attractiveness of study programs, student workload assessment using ECTS credits, exam pass rates, study success, employment of graduates, teaching quality and teacher assessment (student feedback), self-evaluation of teachers, quality of scientific and professional activities, lifelong learning and professional development of teachers, evaluation of the work of administrative and management services, mobility and international cooperation, and student satisfaction with the study program and final practical training internship, among others. Reports on the results of analyses (Reports ) are published on the website and discussed in thematic sessions, serving as a basis for informed decision-making by the management and relevant bodies. Reports on analyses related to individual persons/employees are not publicly published but are made available to the individual concerned and their superiors in accordance with the Manual and GDPR. Thus collected data, as well as data from other information systems, are also used as a starting point for SWOT analyses conducted during the preparation of strategic documents (Development Strategy) for each strategic area and form the basis for further planning of activities. Students and other stakeholders are involved in these processes in various ways. Student representatives are members of the Quality Improvement and Assurance Unit (Unit) and its expert bodies (Committee for Monitoring and Improving Administration of Study Programmes, Committee for Student Relations), and as members of the KUAS Council, they participate in thematic sessions discussing analysis results and contribute to decision-making of the KUAS Council. Representatives from the economy and local government are also members of the Unit and are informed of its activities during its meetings.

#### The higher education institution regularly and transparently reports on the implementation of the strategy, operations and the implementation of program contracts, where applicable

KUAS publishes reports on the implementation of the Development Strategy on its website (<u>Implementation of strategy</u>), business activity (<u>Finance report, Internal audit / Statute and other documents / KUAS</u>) as well as implementation of the programme contracts (<u>Programme contracts reports</u>), as well as other similar reports, e.g. Report on the implementation of the Action Plan for the implementation of activities according to recommendations for improving quality at Križevci College of Agriculture (<u>Implementation of the Action Plan</u>).

#### The higher education institution manages its financial resources transparently, efficiently, purposefully, and sustainably

The transparency of KUAS's financial operations is ensured through the public disclosure of key financial documents and indicators (<u>Financial reports</u>, <u>Public information on expenditure of funds</u>). All procurement procedures for goods and services are conducted transparently in accordance with the Decision on the Procedure for Simple Procurement of Goods and Services and the Public Procurement Act ("Official Gazette", No. 120/16, 114/22, (<u>Public Procurementa</u>)).

The basic documents governing operations in a given year are the Financial Plan, Procurement Plan, and Annual Financial Statement, which are approved by KUAS's Management Board. Employees are invited to express their needs and proposals for the procurement of goods or services for the following year, with specific proposals being submitted by departments, heads of practical training, laboratory managers, and the committee for agricultural machinery procurement. The Procurement Plan is developed with attention to the needs of all KUAS activities, particularly in teaching, professional, and scientific domains, ensuring alignment with the goals of the Development Strategy. The Financial Plan and Procurement Plan are adopted by the Management Board upon the dean's proposal. Financial Plan is regularly established for a three-year period, planning revenues and expenditures while considering the fundamental needs and opportunities, ensuring the functioning of all KUAS activities and introducing modern approaches in various fields. The Annual Financial Statement is published on KUAS's website after approval of the Management Board, making it accessible to all employees and the public.

Financial responsibilities are regulated by the Statute, with procedures governed by a series of internal regulations, such as the Procedure for Monitoring and Collecting KUAS's Revenues and Receipts. Although there is no legal obligation for this, KUAS has appointed an internal auditor who prepares two semi-annual reports on KUAS business activity. In KUAS's Development Strategy, Specific Goal 4.4 is set: Rationally manage revenues and expenditures, with Activity 1 being to use market-generated revenues from its own activities to improve conditions for KUAS's activities and encourage employees to actively participate in revenue generation in the market. This goal and the Action Plan for 2024 include a revision of the

Regulation on the Distribution and Use of Revenues Generated in the Market through its own activities.

From all financial reports, it can be concluded that KUAS operates continuously in a positive and sustainable manner. There are three groups of financing sources for KUAS: funds from the budget of the Republic of Croatia, earmarked funds, and its own funds, i.e., revenues. The share of own and earmarked funds in total revenues varies from year to year, ranging from 22.12% in 2021 to 35.78% in 2023.

## 1.3. The higher education institution collects, analyses and uses data relevant for the effective management of all activities, and publishes the information about its work.

Using a quality assurance system and available information systems, the higher education institution collects data (on employees, students, programmes, etc.) using various methods, analyses them and uses relevant information to monitor trends, report on its activities, plan its follow-up activities and make informed decisions. Students and other stakeholders are involved in these processes

This statement is explained in chapter 1.2.

The higher education institution uses information systems to monitor indicators on compliance with the legal requirements for the pursuit of higher education and scientific or artistic activities, where applicable

All professional services at KUAS use appropriate business applications. Student administration office uses the Higher Education Information System (ISVU) for managing the database about students, enrollments, exams, teachers, and courses. Certificates and confirmations are issued to students via ISVU. All KUAS teachers use the ISVU system and have access to data on students and courses through the teaching portal, where they can enter grades and more. KUAS collects data and generates various reports as needed through ISVU. The library uses Metelwin, accounting and bookkeeping are managed by CIRIS and LIBUSOFT. For teaching and statistical analysis in scientific research, the STATISTICA program is used. In daily operations, both students and employees use programs from the MICROSOFT OFFICE365 suite. KUAS teachers utilize the anti-plagiarism program Turnitin. The IT department uses GIMP, ABBYY FineReader, INKSCAPE, and other programs.

KUAS 's website is regularly updated with new content to ensure timely access to information for internal and external stakeholders. KUAS teachers access services via the AAI@Edu.hr electronic identity and regularly update personal and course-related data (notices for students, exam results, etc.). The student administration officer regularly publishes information related to enrollment deadlines, exams, thesis defenses, and more. Detailed information about study programs, teaching plans for courses, obligatory and additional literature, and digital teaching materials (presentations, exercises, practice tasks, lecture notes, etc.) are available on the

website. In response to the COVID-19 pandemic, KUAS successfully transitioned to online teaching (Microsoft Teams, Merlin, Zoom), conducting workshops for teachers on these platforms, and students were promptly informed about the urgent switch to online teaching. (INFORMATION ABOUT ONLINE CLASSES / Novosti / VGUK; Učenje na daljinu obavijesti - novo! / Novosti / VGUK). KUAS fully transitioned to online teaching within a few days, acquiring all necessary audio-video equipment to support e-learning, which is also used for other purposes, such as conferences. Since the online communication method has proven to be very acceptable, especially in certain course segments, it continued to be used occasionally to achieve learning outcomes, primarily for part-time students. Today, all KUAS study program courses are available in e-form on the Merlin system, and if needed, classes are held via Merlin or Microsoft Teams. Additionally, students who cannot attend classes in person for justified reasons (primarily due to illness) are provided with online access to the courses The system for improvement and assurance quality (SIAQ) is transparent on the website, following the activities defined in the KUAS Quality Improvement and Assurance Manual. Student surveys are conducted via website. KUAS regularly publishes and archives strategic documents, statutes, regulations, decisions, action plans, reports on activity implementation, survey results, promotional content, and more.

The higher education institution has a strategy for the digital transformation of education that is integrated into the overall strategies for institutional development and quality enhancement.

The education system has undergone substantial digital transformation in recent years at KUAS, in alignment with the system established by MZOM (Ministry of Science, Education and Youth) (ISVU), supported by investments of its own financial resources and human labor. However, despite ongoing upgrades to ISVU, KUAS anticipates planned solutions for this system that should facilitate complete digitalization of institutional development and quality improvement, particularly in the education (teaching) area. While KUAS does not have a formal strategy for digital transformation in education, it has to a significant extent implemented digital transformation across its operations. Plans to continue with digital transformation are outlined in the Development Strategy, specifically in strategic goal IV regarding Teacher and Institutional Capacities, focusing on the development of human resources and reducing administrative burdens on teachers. A functional system for data and document management is to be established, with a completion deadline of 2024/25. Discussions with providers of digital solutions for transformation commenced in early July 2024, with an expected completion of the solution selection process by the end of 2024 when the best solution for KUAS will be chosen.

The higher education institution keeps electronic records and ensures access to and exchange of data in accordance with the national legislative framework.

The higher education institution has prescribed measures to use the information systems and ensure information security, and implements them consistently.

KUAS electronically manages all data records and ensures access and exchange of data in compliance with national legislation.

Information security at KUAS is ensured by best practices in computer usage (operating and information systems). The KUAS information system and computer network are protected from external threats by a firewall, and computers are secured with antivirus programs. Furthermore, the human factor is critical in information security; therefore, employees and students at KUAS are regularly informed about emerging threats (new computer threats such as viruses, ransomware, phishing emails, etc.) and educated on how to protect themselves to prevent further escalation of threats.

Clear, accurate, objective, and valid information on study programmes and on the work of a higher education institution is publicly available and easily accessible, in Croatian and in one of the world's languages.

Clear, accurate, objective, and valid information about KUAS 's study programs and operations is publicly available in Croatian (<a href="https://www.vguk.hr/">https://www.vguk.hr/</a>) and in English (<a href="https://www.vguk.hr/">Križevci University of Applied Sciences (vguk.hr)</a>). Information about KUAS 's study programs (teaching plans, academic calendar <a href="https://www.vguk.hr/">ACADEMIC CALENDAR 2024-25.pdf (vguk.hr)</a>, class schedules <a href="https://www.vguk.hr/hr/group/74/Raspored">https://www.vguk.hr/hr/group/74/Raspored</a>, exam periods <a href="https://www.vguk.hr/hr/group/74/Raspored">Ispitni rokovi / VGUK</a>, etc.) is also available on the KUAS website.

KUAS 's website informs about its operations, primarily financial (as mentioned in the subsection of the indicator: *The higher education institution manages its financial resources transparently, efficiently, purposefully, and sustainably*), as well as other KUAS activities. The website also provides updates on current topics and events, lectures, round tables, or panels organized or co-organized by KUAS that may be of interest to the broader public (news section).

The higher education institution is obligated to inform the public on admission criteria, enrolment quotas, study and educational programmes, learning outcomes and qualifications, forms of support available to students, procedures applied in teaching, learning, and assessment, pass rates, learning opportunities available to students, as well as information on the employment of students who have recently graduated

All information about study programs (teaching plans), enrollment procedure, and criteria for admission are published on KUAS's website. Admission conditions for undergraduate professional studies are also published on the National Information System for Applications to Higher Education Institutions (NISpVU) Become a student (postani-student.hr).

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

The higher education institution continuously promotes, supports and ensures ethical and transparent work, academic integrity and freedom among all stakeholders (in theory and practice) throughout the whole organisation, thus demonstrating its social responsibility.

KUAS consistently promotes, supports, and ensures ethical conduct, transparency, academic integrity, and freedom among all stakeholders (in theory and practice) across the entire organization. The protection of all stakeholders is guaranteed by KUAS's Statute, Labor Law, rules, and procedures regulated by the KUAS Ethical Code (for employees and students), the Disciplinary Responsibility Regulation (for employees), and the rules and procedures governing student disciplinary accountability outlined in the Study Regulations.

#### The work of employees of the higher education institution, its students and external stakeholders, is based on ethical standards in higher education.

All stakeholders at KUAS base their work on the principles of academic ethics. In cases of violation or non-compliance, sanctions are provided for in the Ethical Code, the Disciplinary Procedure Regulation, and the Regulation on Professional Studies. KUAS has established a Personal Data Protection and Processing Regulation, in accordance with Regulation 2016/679 of the European Parliament and Council (General Data Protection Regulation) and the Law on the Implementation of the General Data Protection Regulation, which is applied in its operations. Personal data is collected based on law or explicit consent from the subject. For example, explicit consent for processing personal data is required when enrolling in a study program or applying for public job competitions, housing in the KUAS Student House, etc.

#### The higher education institution effectively takes measures to prevent unethical behaviour, intolerance and discrimination.

KUAS primarily encourages and fosters awareness of ethical behavior, tolerance of diversity, and non-discrimination. KUAS strives to prevent unwanted behavior among employees and students. Initiatives include informal team-building activities, mentorship, organizing ceremonial meetings to celebrate KUAS anniversaries (KUAS Day), and educating students on principles of academic conduct and integrity.

KUAS has mechanisms in place to prevent unethical behavior, intolerance, and discrimination. The core values of ethical behavior for employees and/or students are incorporated into all legal documents of KUAS, especially defined in the <a href="Ethical Code">Ethical Code</a>. The Ethical Code prescribes fundamental ethical principles and defines the obligations of teachers and students at KUAS regarding ethical conduct. Other relevant documents include the <a href="Work Regulation">Work Regulation</a>, and the <a href="Disciplinary Responsibility Regulation">Disciplinary Responsibility Regulation</a>, which defines disciplinary procedures in cases of violation of ethical principles and obligations. A new Disciplinary Responsibility Regulation is currently being drafted; the <a href="Study Regulation at KUAS">Study Regulation at KUAS</a> outlines how to prevent and sanction unethical behavior, intolerance, and discrimination among employees and students.

The higher education institution conducts activities related to the sanctioning of unethical behaviour, intolerance and discrimination, ensuring a fair and unbiased implementation of procedures.

KUAS has appropriate measures and procedures in place for conducting activities to sanction unethical behavior, intolerance, and discrimination, ensuring fair and impartial processes for all involved. Over the past five years, there have been no disciplinary proceedings at KUAS that resulted in prescribed sanctions.

#### The system of resolving conflicts and irregularities is defined and it functions at all levels of the higher education institution.

The conflict and irregularity resolution system is well-defined and operational. The ethical process is managed by the Ethics Committee appointed by the KUAS Council according to the procedures outlined in the Ethical Code. The committee consists of five members, three of whom are teachers representing specific departments, one representative from non-teaching staff, and one student ombudsman. The Ethics Committee issues opinions that carry authority but do not bind other bodies and are not administrative acts. Appeals cannot be made against the Committee's opinions.

The disciplinary process is conducted by the Disciplinary Procedure Committee appointed by the KUAS Council, according to the procedures specified in relevant regulations, differing for employees and students. The disciplinary procedure is formal and applies principles of criminal procedure as per Croatian law. It prescribes measures, the most severe of which is termination of employment. The union also participates in the disciplinary process. The second-instance body is the Management Board.

Disciplinary procedures against students can be initiated through requests submitted by employees, students of KUAS, or individuals with justified legal interest. The dean makes decisions on disciplinary measures based on proposals from the Student Disciplinary Procedure Committee, appointed by the dean. Students can appeal the dean's decision to the KUAS Council, whose decision on the appeal is final.

The higher education institution encourages research into the causes and consequences of unethical behaviour, the effectiveness of measures taken to prevent it, it reports on research results and monitors trends.

In cases of unethical behavior, KUAS encourages the investigation of its causes and consequences, the effectiveness of prevention measures, and reports on research results. Over the past five years, there have been no disciplinary procedures at KUAS resulting in prescribed measures.

The higher education institution applies new technologies to eradicate all forms of unethical behaviour. The higher education institution systematically addresses issues of plagiarism, cheating and falsification of results.

To facilitate the detection and prevention of plagiarism in student work, KUAS uses a digital tool (Turnitin) for plagiarism detection. Additionally, students must submit a signed <u>Statement of Academic Integrity</u> when handing in their work to their mentors, which is a part of the final thesis. In the last five years, there have been no recorded instances of unethical behavior (plagiarism, copying, and falsification of results) at KUAS. The last recorded cases occurred in 2015 and 2016.

# 1.5. The higher education institution applies new technologies to eradicate all forms of unethical behaviour. The higher education institution systematically

addresses issues of plagiarism, cheating and falsification of results.

The higher education institution fosters the development of a quality culture that promotes the importance of active participation in internal and external quality assurance processes among all stakeholders of the higher education institution, so that they fulfil their purpose, act as a catalyst for change, and offer new perspectives to the higher education institution.

The quality policy represents a shared understanding of quality at KUAS, aligning with the institution's strategy, mission, and vision, and is focused on ensuring quality and promoting a quality culture within KUAS. The quality assurance policy is known and understood by all stakeholders at KUAS, is publicly available, and can be accessed on the institution's website (Quality policy).

The Križevci University of Applied Sciences has established a quality assurance and improvement system (QAIS). QAIS was created and maintained in accordance with the *Standards and Guidelines for Quality Assurance in the European Higher Education Area* (2015, Brussels, Belgium, abbreviated as ESG). The mission of the system is to promote a quality culture within KUAS and to continuously improve all processes and activities, especially teaching, scientific research, administrative, and management, with full participation from all quality stakeholders at KUAS. The culture of quality is built in all aspects of operation (teaching, research, developmental-professional) and through all normative acts. The purpose of the system is to establish principles, criteria, and methods for ensuring and improving quality, as well as defining and monitoring quality indicators.

KUAS's commitment to ensuring and improving the quality of all activities is reflected in one of the strategic goals of its Development Strategy for the period 2023–2028: "To further develop and continuously improve quality assurance and improvement system of KUAS to ensure coherence and purposefulness, with transparent information about KUAS's activities."

The quality assurance system is periodically improved and revised on the basis of results of implementation of the regular internal and external quality assurance procedures in line with the ESG, and it is reported to stakeholders in a timely, clear, accurate and objective manner.

At KUAS, a Unit for Quality Assurance and Improvement (hereafter referred to as the Unit) and expert bodies within the Unit have been established: the Committee for Monitoring and Improving Studies and the Committee for Student Relations. Documents relevant for defining the operations of quality assurance and improvement system, responsibilities, and procedures of the Unit and its expert bodies include the Regulation on Internal Quality Assurance and Improvement (Regulation) and the Quality Assurance Manual (Manual). Both documents have been revised since their initial issuance, demonstrating the continuous improvement of Quality Assurance and Improvement System. The first Regulation was published in 2011, and in 2016, a decision to amend it was made. The first version of the Manual was developed and adopted in February 2013. The first revision of the Manual took place in May 2015, resulting from improvements in the quality system at KUAS (former Križevci College of Agriculture/KCA). The second revision was completed in May 2017, aligning it with the requirements of the revised ESG.

In line with the strategic goal of the Development Strategy for 2023–2028 to further develop and continuously improve Quality Assurance and Improvement System of KUAS in terms of its coherence and purposefulness, and to provide transparent information about KUAS's activities, a Specific Goal 1.1 has been established: Improvement of the existing Quality Assurance and Improvement System – developing procedures for the systematic evaluation of all activities at KUAS, as well as Activity 1, which involves aligning the documents of Quality Assurance and Improvement System (Regulation and Manual) with the new Law on Quality Assurance in Higher Education and Science (OG, 151/22) and the Law on Higher Education and Scientific Activities (OG 119/22), addressing identified shortcomings, and implementing changes as needed. Adoption of the new Regulation and Manual is planned for 2024, drafting of proposals for the Rulebook and Manual is underway, taking into account the results of internal and external quality assurance procedures. In the meantime, some of the forms for conducting surveys (Forms) have been refined or changed. Thus, for example, the form of the Initial survey for students of the first year of undergraduate studies, the form of the teaching plan, the KUAS Alumni Questionnaire, the form of the Student Satisfaction Survey with the study program were changed. Due to the indicated needs, some new survey questionnaires were created, for example, a questionnaire on satisfaction with professional practical training within the courses in the first year of the professional undergraduate study in Agriculture and a questionnaire on the organization of classes for part-time students. The procedure for collecting data on satisfaction with the study program has also been modified. Due to the low response of students to filling out the survey or not paying enough attention in giving answers, this survey is no longer conducted anonymously, but panels are organized on the same topic, and the response of students is satisfactory.

#### The higher education institution conducts an internal evaluation of the quality assurance system in a cycle that is shorter than the length of the external evaluation cycle

The internal evaluation process of the quality assurance system is outlined in the Quality Assurance Manual. A comprehensive assessment of the entire quality system is conducted every five years, based on partial evaluations carried out in shorter intervals. The most recent

comprehensive assessment was completed in March 2021, and a report (<u>Final Report on the Internal Evaluation of the Quality Assurance System</u>) was prepared detailing the findings.

The higher education institution ensures the competence of internal assessors, and encourages them and provides them with necessary knowledge and skills.

The Final Report on the Internal Evaluation of the Quality Assurance System presents the entire internal evaluation process, which included training sessions and meetings with the teams responsible for conducting the assessment. These meetings and training sessions were led by the head of the Quality Assurance and Improvement Unit.

The higher education institution ensures that the preparation for internal and external quality assurance processes considers the progress made since the last internal and external quality assurance processes, which form a continuous improvement cycle and contributes to accountability of the higher education institution.

As described in the introduction, KUAS underwent a reaccreditation process in 2019. In response to the recommendations for quality improvement at VGUK, an <u>Action plan</u> was developed, which was implemented. Two years later, the Agency for Science and Higher Education (AZVO) received a report on the implementation of the Action Plan (<u>Implementation Report</u>). The commission accepted the report, and the Accreditation Council of AZVO concluded to accept the commission's opinion. (<u>Conclusion</u>).

In the process of external independent periodic assessment of the quality assurance system (audit), SOUK VGUK was, unfortunately, not rated well. The Accreditation Council of AZVO accepted the report from the Expert Commission, which indicated that quality assurance system of KUAS was structured and that the first three evaluation criteria (quality policy, planning and management, implementation and monitoring) were in an advanced stage. However, the last two criteria (assessment, improvements, innovations, and impact) were still in the initial stage and did not meet the requirements for the reissuance of the certificate granted in the previous process completed in 2013. Based on the recommendations from the Expert Committee, an Action Plan for improving quality assurance system was developed, most of which has since then been implemented.

Recommendations from the internal evaluation of quality assurance system were also considered in the development of a new Development Strategy for the period 2023-2028. Further processes are being conducted based on the observations and recommendations from the internal evaluation. For instance, the Quality Assurance and Improvement Unit created recommendations for redesigning KUAS's website based on findings from the internal evaluation and additional analyses. These recommendations have been implemented, although not to full extent due to technical limitations of the existing website.

The joint impact the internal and external quality assurance processes have on the development of the higher education institution is being analysed and monitored.

After implementing measures derived from the analyses of quality assurance system, the same quality indicators continue to be monitored to assess whether the measures were appropriate and effective. Several examples demonstrate this process. By analysing student pass rates on exams and their progression to the next year of study, data is collected on which courses are least successfully completed and most frequently deferred. It was noted that over a multi-year average, around 60% of students enrolling in the second year of the undergraduate Agriculture program did not pass the course "Principles of Agricultural Economics." Additionally, analysis of student workload per ECTS credit in this course revealed that students spent a significant amount of independent work, with the workload per ECTS credit exceeding the program average. As a result, a decision was made to revise the study program in the academic year 2018/2019, increasing the ECTS credits for this course from 4.5 to 5.5 and the number of lecture hours by 15, without altering the learning outcomes or course units. Further monitoring of course pass rates showed that, although the number of students deferring this course in the following year of study decreased in certain years, it remained one of the most frequently deferred courses, with students still performing the highest amount of independent work per ECTS credit. Consequently, a decision was made to revise the study program for the academic year 2024/2025, redistributing two learning outcomes and corresponding course units to courses in higher years of study. The impact of these decisions will continue to be monitored. Another example involves changes to the implementation of practical training within courses in the first year of the undergraduate program. Following an anonymous complaint received by the dean regarding practical training in one of the first-year courses, a survey was developed and conducted to assess student satisfaction with the practical training in first-year courses. Responses indicated dissatisfaction with practical training in certain courses. Meetings were held with course instructors and the head of the KUAS practicums to discuss proposals for improving the practical training experience. In the new academic year (2022/2023), the practical training was carried out according to these proposals, and student satisfaction was reevaluated after they completed the training across all first-year courses. In the follow-up survey, ratings and comments on the practical training were better but still deemed unsatisfactory. As a result, a decision was made for a more significant change in the execution of practical training in the first year of the undergraduate Agriculture program, set to take place in the academic year 2024/2025. Student satisfaction with the practical training will continue to be monitored.

The higher education institution publishes clear, accurate, objective, valid and easily accessible information on the internal and external evaluation procedures.

The results of both external and internal evaluations are readily accessible on the KUAS's website (Activities and procedures, Internal reports).

### II. STUDY PROGRAMMES AND LIFELONG LEARNING PROGRAMMES

2.1. The intended learning outcomes at the level of a study programme are aligned with the competences a student should gain by completing the study programme, as well as with the CroQF level (ESG 1.2.).

The intended learning outcomes of the study programmes and all the elements of the study programmes (courses, modules, practicals, seminars, student, practice, projects, etc.) are clearly defined and examples of good practice are used to define the intended learning outcomes (e.g. ECTS Users' Guide, 2015).

The intended learning outcomes of the study programs are clearly, concretely, and measurably defined, using short, simple, and understandable sentences, and are described in a way that is comprehensible from the student's perspective. The Dublin Descriptors were used for the elaboration of groups of competencies or learning outcomes at different study levels, along with active verbs in accordance with Bloom's taxonomy of learning, one of the most widely used theoretical frameworks for planning, preparing, and evaluating higher education, while considering the levels of learning outcomes according to the Croatian Qualifications Framework (CQN). The learning outcomes of the KUAS study programs (LO undergraduate study Agriculture, LO Graduate study Agricuoture, LO Graduate study Management in agriculture) are interconnected and aligned with the courses (LO and courses undergraduate study of agriculture; LO and courses Graduate study of Agriculture; Learning outcomes and courses Graduate study Management in agriculture) on one hand (Teaching plan Graduate study of Agriculture; Teaching plan, Graduate study Management in Agriculture), and with the competencies achieved upon completing each study program on the other Competences outcomes undergraduate agriculture; Competencesoutcomes graduate Agriculture; Competences Outcomes Graduate Management in Agriculture aiming to develop the necessary knowledge and skills in students. By completing all courses, not only are the learning outcomes of individual courses achieved, but also the learning outcomes of the study program, thus creating a closed loop that guarantees that the diploma awarded to students certifies the qualifications obtained at the study level.

By reviewing the described learning outcomes of individual courses, it was found that most outcomes used one verb, occasionally up to two active verbs, thereby further ensuring their clarity, transparency, and simpler understanding of the content by students. Additionally, care was taken to keep sentences as short and simple as possible and to ensure that the learning outcomes are measurable. Each learning outcome uses the appropriate verb that corresponds to the method of knowledge assessment for that outcome.

All teachers previously participated in workshops organized by KUAS, including "Learning Outcomes and Assessment in Higher Education" and "Evaluation and Collaborative Observation in Higher Education," where they had the opportunity, under the guidance of an expert, to learn how to best define learning outcomes for their courses in accordance with the

defined competencies and learning outcomes at the level of the study program, in a way that makes it clear to students what is expected of them.

Learning outcomes are continuously assessed, and it is the obligation of each teacher to specify the methods of assessment in the implementation plan. Some of the ways learning outcomes are evaluated include: mid-term or final written exams, seminar papers, activity in classes and outside of classes, individual or group assignments, etc., as well as through practical trainings and/or integrated project tasks, depending on the course.

#### The intended learning outcomes are aligned with the mission and objectives of the higher education institution.

The intended learning outcomes of the study programs are aligned with the mission and strategic goals, as the mission of KUAS is to prepare students for future challenges in the sustainable development of agricultural and food systems and rural areas, as well as for a competitive labor market. From the list of learning outcomes of each study program, we can conclude that each of them is directly or indirectly connected to the mission of KUAS. Many of the learning outcomes emphasize the sustainable development of agricultural and food systems and rural areas, as well as the knowledge and skills that form the foundation of agricultural and food systems. With the acquired knowledge, competencies, and skills, future professionals will enhance practices in these areas and will be prepared for a competitive labor market and entry into a knowledge society. Examples of some learning outcomes from study programs where this is particularly emphasized include: at the undergraduate level: LO3 Assess the impact of agricultural production on the environment and apply environmentally acceptable practices; LO10 Analyze and interpret the socioeconomic characteristics of agriculture and rural areas; LO13 Assess the impact of agrarian policy measures on agriculture and rural development; LO26 Implement ethical and socially responsible behavior among participants in the business process. At the graduate level in Agriculture: LO1 Discuss the economic and social role of sustainable/organic agriculture; LO3 Discuss the role of sustainable/organic agriculture in soil preservation, biodiversity conservation, and climate change adaptation; LO4 Apply the principles of sustainable development in agricultural production; and in Management in Agriculture: LO8 Develop projects in the field of agriculture and rural development.

#### The intended learning outcomes of the study programmes and all the elements of the study programmes are mutually aligned.

In creating the study program, the jobs for which students are being educated and the necessary competencies for performing those jobs were first identified, as well as the required knowledge and skills. The learning outcomes of the study program were established through which these competencies will be achieved. The learning outcomes of the study program are linked to the courses through which these outcomes are realized, and within each course, the learning outcomes are described. The learning outcomes in the courses are presented differently through knowledge, cognitive, psychomotor, and social skills, depending on the area and objectives of each course. By retroactively linking each individual course to the learning outcomes of the

study program in which the course is conducted, it has been verified that each course has its justification in achieving the learning outcomes of the study program. Tables with constructive alignment of the learning outcomes of the study program and the courses through which these outcomes are achieved within the study can be seen at the following links: Learning outcomes and courses undergraduate study program Agriculture; Learning outcomes and courses Graduate study program Agriculture; Learning outcomes and courses Graduate study program Management in Agriculture. In multiple instances, teachers have improved the descriptions of the learning outcomes of their courses within their departments, in groups formed according to the content area of the courses or individually, in order to avoid overlaps in learning outcomes between different courses and to ensure that the learning outcomes follow a logical sequence within the study program.

The intended learning outcomes are used as a starting point for the development and revision of the study programme, the delivery of the study programme and the assessment and evaluation of the student's achievements. They are designed to allow students to progress through their studies without obstacles.

The learning outcomes of the programs and courses are written to be understandable from the student's perspective. The intended learning outcomes for each course clearly indicate what students will learn (know), understand, and be able to demonstrate after successfully completing the course. The obligations of the students, the methods for monitoring student progress (all forms of student assessment in each course), and how student achievements will be evaluated are clearly outlined. In all courses, constructive alignment and mutual consistency of the expected learning outcomes, teaching methods, and assessment methods have been implemented. In the course syllabi of each individual course, the corresponding teaching units are linked to specific learning outcomes, and the assessment methods for each individual learning outcome within each course are described, along with the estimated time required to achieve each learning outcome. Uninterrupted progression of students through their studies is ensured in several ways. The study programs indicate that in the first year, particularly in the first semester of all study programs, students take courses that form the foundation of the discipline, thereby creating a solid basis for deeper knowledge and understanding of courses in higher years of study. The existing study programs at KUAS are structured in such a way that the learning outcomes of courses in earlier semesters serve as the foundation for mastering the learning outcomes of courses in subsequent semesters. Additionally, some courses have specified prerequisites that require students to have achieved the necessary learning outcomes in previously completed courses in order to master the learning outcomes of a specific course. Furthermore, the undergraduate professional study program in Agriculture includes so-called conditional courses that students must pass in a given year of study, which help them to understand and follow courses in higher years of study and form the basis for further mastery of learning outcomes in higher-level courses.

The intended learning outcomes of the study programmes are aligned with the descriptors of the relevant CroQF and EQF level. The qualifications gained upon completion of the study programmes are clearly described and presented.

The intended learning outcomes of the study programs comply with the descriptors of the levels of the CQF and EQF, as specified in the Law on the Croatian Qualifications Framework (Croatian Qualification Framework Act "Official Gazette", No. 22/13, 41/16, 64/18, 47/20, 20/21), Article 7, which states that qualifications obtained upon completion of undergraduate professional studies (professional bachelor studies) correspond to level 6 st. (st. meaning professional) of the CQF and 6 of the EQF. The total workload required to achieve the qualification is a minimum of 180 ECTS credits, of which at least 120 ECTS credits must be at level 6 of the CQF or higher. For level 7.1 st. of the CQF and level 7 of the EQF, qualifications obtained upon completion of specialist graduate professional studies (professional master's studies) are included. The total workload for obtaining the qualification upon completion of professional master's studies is a minimum of 60 ECTS credits at level 7.1 or higher, provided that the total of at least 300 ECTS credits is achieved together with the previously acquired qualification at level 6. An analysis of the learning outcomes of the study programs and all courses through which these outcomes are achieved indicates that in the undergraduate study, more than two-thirds of the learning outcomes and associated ECTS credits are at level 6 or higher, and more than half of the learning outcomes and associated ECTS credits for specialist graduate studies are at level 7 or higher. The corresponding levels of learning outcomes for the undergraduate professional study in Agriculture can be confirmed through several examples of specific learning outcomes from the program. According to Appendix A of the Law on the CQF, the knowledge students acquire at level 6 should be reflected in the ability to evaluate specialized facts, concepts, procedures, principles, and theories within the field of work and/or study, including their critical understanding. This level of knowledge, for example, is evident in the following learning outcomes: LO3 Evaluate the impact of agricultural production on the environment and apply environmentally acceptable practices; LO4 Interpret the climate and soil characteristics of a specific area and assess their suitability for certain agricultural production; LO16 Propose technology and organize the production of annual and perennial crops; LO27 Plan an appropriate breeding and utilization system for farm animals; LO28 Organize individual processes in the production of animal products according to a previously defined plan. Examples of outcomes that acquire cognitive skills at level 6, which involve collecting, interpreting, assessing, selecting, and creatively using various relevant facts, concepts, and procedures in designing solutions and solving complex tasks or problems within a specialized field of work under unpredictable conditions, are evident in: LO9 Analyze the specifics of livestock production and methods of breeding farm animals; LO10 Analyze the specifics of crop production and methods of cultivating agricultural crops; LO11 Conduct practical research in the field; LO23 Apply economic, business, and financial analysis to support decision-making in managing agricultural enterprises; LO24 Analyze the market for agricultural and food products and trends in agriculture; LO25 Apply marketing strategies to increase the sales of agricultural products and services; or LO30 Identify and ensure ethical conditions and zootechnical procedures in livestock production. Acquiring knowledge at level 7 according to Appendix A of the Law on the CQF involves creating and generating new knowledge, as well as evaluating highly specialized knowledge in the field of work and/or study, which can serve as a foundation for original thinking and connecting knowledge across different fields. Furthermore, through the learning outcomes of the 7.1 level programs, cognitive skills are developed that include critical evaluation and creative thinking in solving new and complex problems, necessary as a basis for the development of new knowledge and connecting knowledge in specific areas under unpredictable conditions. Examples of such outcomes include: LO4 Apply the principles of sustainable development in agricultural production; LO6 Propose technology for growing agricultural crops based on sustainable/ecological principles; LO7 Suggest appropriate methods and procedures for managing a livestock farm according to sustainable/ecological principles; and LO12 Design and conduct applied research in the field of agriculture in the specialist graduate study of Agriculture. Similarly, in the specialist graduate study of Management in Agriculture, examples include: LO1 Develop projects in the field of agriculture and rural development; LO2 Develop a strategic plan for the development of an agricultural enterprise; LO6 Manage quality in the operations of an agricultural enterprise; and for example, the outcome LO8 Develop projects in the field of agriculture and rural development.

The intended learning outcomes of the study programmes clearly reflect the competencies required for employment, education continuation, or other needs of the individual/society. The intended learning outcomes of the study programmes are comparable with the intended outcomes of comparable programmes in the Republic of Croatia and EU Member States.

The intended learning outcomes of the study program clearly reflect the competencies needed for entering the labor market, furthering education, or addressing personal needs of individuals or society, as can be seen in the descriptions of study programs at the following links: Competencies Outcomes for Undergraduate Professional Studies in Agriculture; Competencies Outcomes for Specialist Graduate Studies in Agriculture; Competencies Outcomes for Specialist Graduate Studies in Agricultural Management (Competences outcomes undergraduate study agriculture; Competences outcomes graduate study agriculture; Competences outcomes graduate study management in agriculture.).

Križevci University of Applied Sciences (KUAS) has been developing and improving its competency-based study programs since its participation in the aforementioned TEMPUS project for the development of professional BSc and MSc programs and short specialized seminars in agricultural production and management (Development of a professional BSc and MSc Course and Short Professional Courses in Farm Production and Management JEP-19052-2004). The primary goal of this project was to develop a study program for the undergraduate and specialist graduate professional study in Agriculture and to enhance faculty training in competence-based education. As a result of this project, changes were introduced to the existing study programs based on the results of labor market needs assessments and evaluations of alumni from the University, as well as analyses of student evaluation results as part of the quality assurance system. The study programs continue to be developed and regularly revised in collaboration with employers, recommendations from faculty, and feedback from former students. The revision of existing study programs aims for continuous improvement to ensure that learning outcomes align with the needs and expectations of students and the labor market. In accordance with the Manual, an analysis of the quality of existing study programs is conducted at several levels. Student satisfaction with the study program is assessed through surveys and/or panel discussions with graduates to determine their satisfaction with the program and the knowledge, competencies, and skills achieved. Similarly, student satisfaction with their final professional practice is monitored. Feedback is also gathered from employers regarding their satisfaction with KUAS's study programs, along with expected recommendations for improvement. Additionally, continuous feedback is collected from alumni about their satisfaction with the programs and their opinions and suggestions for improvement. Through various projects and workshops (e.g., EDUAGRI), collaboration with potential employers is maintained to gather information about labor market needs to inform the development of new or improved existing study programs.

KUAS has developed two new professional short study programs (2 years, 120 ECTS credits, CQF level 5) in the field of agriculture, which have been submitted for accreditation, based on research of labor market conditions, potential employers, and alumni feedback.

KUAS regularly collects and analyzes data available from the Croatian Employment Service (HZZ) regarding the employment/unemployment of graduates, comparing data on the number of graduates in a given year with the status recorded by HZZ. Data on the number of unemployed KUAS graduates is collected and processed, and comparisons are made over the years. The number of unemployed graduates, those employed in their field, and those working outside their field one year after graduation are analyzed in relation to the total number of graduates. Data is also collected by surveying graduates using contact information stored in the Student Office.

In general, very few graduates register with the Employment Agency, leading to the conclusion that most find jobs quickly or remain on their family farms. Some graduates also find employment outside their field, indicating that education at KUAS provides both general and transferable competencies necessary for various jobs. Overall, it can be concluded that the competencies developed during their studies are in demand in the labor market and ensure employability. The learning outcomes of the undergraduate professional study allow for vertical mobility of students, meaning they can continue their education at KUAS or other related professional and university studies, primarily in Croatia but also abroad. The largest number of students continue their education at graduate studies, at KUAS or at university graduate studies where their learning outcomes are fully recognized or there are additional enrolment requirements.

#### The intended learning outcomes of the study programmes are comparable with the intended outcomes of comparable programmes in the Republic of Croatia and EU Member States

The expected learning outcomes of KUAS study programs are comparable to the expected learning outcomes of a larger number of related study programs in the Republic of Croatia and EU countries. The specificity of the undergraduate study program in *Agriculture* is that in the second year of study it is divided into three specific fields of study: *Plant production, Zootechnics and Management in Agriculture*, and the first year of study, as course foundations, is common to all three majors. These specific fields of study can be compared with study programs of a similar name at other higher education institutions. The outcomes of the study program in *Agriculture*, including those on the specific fields of study, are comparable to the learning outcomes of professional study programs, as well as university study programs, with

the expected differences and specificities. Many of the related study programs are designed in such a way that in the 1st year of study they also have courses related to the course foundations, which entails a similarity in the learning outcomes of the study programs. Section 2.2.3. provides an outline of the learning outcomes of KUAS study programs. Related study programs whose learning outcomes are comparable to the learning outcomes of the undergraduate professional study of Agriculture and related specific field of study are outlined below. The most closely related study programs, both university and professional ones, are those that are delivered in Croatia, at the Faculty of Agronomy in Zagreb (AF), where only university study programs are delivered; at the Faculty of Agrobiotechnical Sciences in Osijek (FAZOS), where both university and professional study programs are delivered; University of Slavonski Brod (SB), Biotechnical Department, where the professional study program is delivered; at the University of Split - biotechnical department (ST), where the university study program is delivered, and at the professional studies at the Polytechnic in Knin (VK) and the Polytechnic in Rijeka (VR). Study programs comparable to the study program Agriculture, specific field of study Plant production: AF Plant sciences, FAZOS Plant production as well as professional study programme Plant production (specific field of study Crop production), VK delivers KARST AGRICULTURE - PLANT PRODUCTION, biotechnology department of SB delivers professional study programme Plant production.

Study programs are comparable to the study program Agriculture, specific field of study Zootechnics are: AF <u>Animal sciences</u>, at FAZOS <u>Zootechnics</u>, as well as professional study program <u>Zootechnics</u> at VK – Karst agriculture – <u>livestock production</u>.

Study programs comparable to the study program Agriculture, specific field of study Management in Agriculture are: AF <u>Agricultural economics</u>, FAZOS <u>Agroeconomics</u>, as well as professional study program <u>Agricultural entrepreneurship</u>, VR delivers two comparable professional study programs: <u>Sustainable agrotourism</u>, which includes agricultural production focused on agrotourism, and the program <u>Mediterranean Agriculture</u>, and ST delivers the study program <u>Mediterranean agriculture</u>. Both Mediterranean Agriculture study programs are related to the agricultural production characteristic of the area where the program is carried out, but the learning outcomes resemble those of the KUAS study programs.

Programs comparable to the Agriculture undergraduate program in EU countries and Great Britain:

Similarities with Plant production at KUAS: in Maribor (Slovenia) - <u>Agronomy - Ornamental Plants, Vegetables and Crops, Agriculture and the Environment, General agriculture, but optional modules provide orientation towards specific fields of study; Ljubljana (Slovenia) - <u>Agriculture - Agronomy.</u> Hochschule Osnabrück delivers study program <u>Agriculture</u> which can be compared with the existing undergraduate study of Agriculture at KUAS. Most of the subjects have a high degree of concordance, as well as learning outcomes, i.e. basic competencies that are acquired upon completion of this study. At the Häme University of Applied Sciences (Hämeenlinn, Finland), the <u>Professional Horticulture Degree Program</u> is offered at the undergraduate level. Professional Horticulture - HAMK which has common points in terms of subjects on the main study program in the field of plant production. Although this study program lasts 4 years (240 ECTS credits), it is possible to establish the similarity of learning outcomes and basic competencies of two similar studies. The Universidad Politécnica</u>

de Madrid (Spain) offers professional undergraduate studies <u>Grado en Ingeniería Agrícola</u>. Although this program also runs for eight semesters and carries a total of 240 ECTS credits, it is possible to establish the concordance with its learning outcomes and competencies; two study programs at Harper Adams University (Edgmond/Newport, Great Britain) - <u>Agriculture with</u> Crop Production Science and Agriculture with Farm Technology.

Similarity with the specific field of study of Zootechnics at KUAS: in Maribor (Slovenia) a professional program of <u>Animal husbandry</u> is delivered, and in Ljubljana (Slovenia) university study program <u>Agriculture – animal production</u>, whereas <u>Harper Adams University</u> (Edgmond/Newport, Great Britain) delivers the study program <u>Agriculture with Livestock</u> Production Science.

Similarity with the specific field of study of Management in Agriculture at KUAS: Maribor (Slovenia) Agrarian economics and rural development, in which the main goal of the program is to train experts, who will successfully combine the technological knowledge acquired through elective modules in the field of agronomic and livestock technology with management and economic knowledge, and the program provides key knowledge in the field of development in the emerging economy; in Vienna (Austria) - Agrarmanagement. In Castelo Branco (Portugal) - the general program of agriculture Agronomy, Castelo Branco (Portugal) -Agronomy, which aims to be multi-purpose, provides basic training that acquires the skills to work in different areas of the agri-food sector, from production to consumption. In Vienna (Austria) - Agricultural Sciences Universität für Bodenkultur Wien and Agrarmanagement (management in agriculture). Below we list the related study programs whose learning outcomes are comparable to the learning outcomes of professional graduate studies in Agriculture, the field of Sustainable and Organic Agriculture, and Management in Agriculture. In Croatia and the EU, programs comparable to the Sustainable and Organic Agriculture: university graduate study program Organic agriculture and agrotourism at AF in Zagreb and Organic agriculture at FAZOS, Mediterranean agriculture, based on organic principles at ST. Professional graduate study program Organic agriculture and rural development at SB, Fachhochschule Kiel University of Applied Sciences (Germany) delivers professional graduate study programmes Sustainable Agriculture, Landwirtschaft und Umwelt administered at Technische Hochschule Bingen in Bingen (Germany), Agriculture – with high proportion related to organic principles, Maribor (Slovenia), Agrarwissenschaften, Hohenheim (Germany), Nachhaltige Agrar und Ernaehrungswirtschaft, Nurtingen Geislingen (Germany); Agro-Environmental Technology for Sustainable Agriculture, one year of study, Madrid (Spain); Organic Agricultural Systems and Agroecology (AgrEco-Organic) Vienna (Austrija) UH 066 500 Master programme Organic Agricultural Systems and Agroecology (AgrEco-Organic) und Organic Agricultural Systems and Agroecology (EUR-Organic)::Study services::BOKU

Programs comparable to the Management in Agriculture graduate study program in Croatia: <u>Agribusiness and rural development</u>, <u>Agroeconomics</u>, as well as graduate professional study programme <u>Agriculture</u>, <u>Food Science and Business</u> at Hochschule Osnabrück (Germany); <u>Agricultural Management</u>, University of Applied Sciences Weihenstephan-Triesdorf

(Germany); <u>Agricultural Economics</u>, <u>Hohenheim (Germany)</u>; <u>Agribusiness Development</u>, Aeres University of Applied Sciences (the Netherlands).

There are study programs in Croatia and Europe that are comparable to KUAS study programs, however, each of the comparable programs has certain differences, ranging from the duration of studies (study system), specifics depending on the country and the specifics of agricultural production of the area where the program is delivered, more or less present specific plant or livestock production, differences in university (less professional practice). Learning outcomes of KUAS study programs are comparable to related study programs in Croatia and Europe.

### The intended learning outcomes of the study programmes also include the development of generic (general/key/transferable) and profession-specific competences.

In addition to professionally specific competencies, the study programs facilitate the development of general/generic competencies for students through the learning outcomes of individual courses. The course syllabi include learning outcomes that help students develop these generic competencies. By completing various tasks, exercises, writing papers, and giving short oral presentations, students cultivate a range of skills such as: analytical and synthetic abilities, organizational and planning skills, teamwork capabilities, information collection and management skills, knowledge of a second language, and communication skills, among others. A significant portion of generic competencies is developed through courses that involve professional practice, especially in the final professional practice courses, which are mandatory in the last semester of each study program. Students are required to address a specific problem/project task and present their solutions. This process fosters their ability to apply knowledge in practice, research skills, adaptability to new situations, creativity, independent work, ethical responsibility, and more. Furthermore, participating in professional practice abroad through Erasmus mobility allows students to develop their ability to work in an international environment and engage in interdisciplinary activities, respecting diversity and multiculturalism.

The intended learning outcomes of the study programmes also include raising ethical awareness, as well as the ability to reflect ethically and to apply ethical principles in decision-making related to professional issues, and the issues related to the profession, arising in a multicultural context.

In developing the learning outcomes of the study programs (and associated courses that contribute to these outcomes), attention was given to fostering ethical awareness and the capacity for ethical reasoning, as well as the application of ethical principles in decision-making related to the profession and business in general. This includes addressing challenges posed by social phenomena in rural areas, such as assessing the environmental impact of agricultural production and applying sustainable practices for environmental protection and the conservation of natural resources, along with socially responsible practices in managing agricultural enterprises. Several outcomes can be highlighted, organized by study programs:

for the Professional Bachelor's Degree in Agriculture: LO 3. Assess the impact of agricultural production on the environment and apply environmentally acceptable practices; LO 10. Analyze and interpret the socioeconomic characteristics of agriculture and rural areas; LO 13. Assess the impact of agrarian policy measures on agriculture and rural development; LO 26. Implement ethical and socially responsible behavior among business process participants; for the Professional Master's Degree in Agriculture: LO 1. Engage in reasoned discussion about the economic and social role of sustainable/ecological agriculture; LO 3. Engage in reasoned discussion about the role of sustainable/ecological agriculture in soil conservation, biodiversity preservation, and climate change adaptation; LO 4. Apply the principles of sustainable development in agricultural production.

2.2. The higher education institution determined the processes for planning and developing new study programmes, and for monitoring and periodically revising the existing ones. This ensures that the study programme is up-to-date, and that the content of study programmes is aligned with the latest scientific / artistic / professional knowledge (ESG 1.2. i 1.9.).

Processes for the development of new study programmes, and continuous improvement of the existing ones are clearly defined, they involve internal and external stakeholders, they are consistently implemented, and undergo a formal approval process within the higher education institution.

Whether it's the improvement of existing study programs or the development of new ones, modified or new study programs go through a formal approval process at KUAS, with internal and external stakeholders involved in the processes. For improving existing programs, necessary changes are regularly discussed on an annual basis, in accordance with the Quality Assurance and Improvement Manual (Manual), which details the procedures and activities with a specific timeline. Changes are primarily based on analyses conducted by QAIS (student surveys, panel discussions with students, employer surveys, alumni surveys, course pass rates, workload per ECTS credit, etc.), as well as student opinions recorded during meetings with their year mentor, and suggestions from faculty members. Proposed changes are considered at various levels (departments, heads of study programs, the Vice Dean for Teaching Activity and Students, thematic meetings, etc.). The agreed-upon proposals are adopted by the KUAS Council, which includes student participation. From the above, it is evident that the process of improving study programs is clearly defined, consistently implemented, and includes various stakeholders. Regarding the introduction of a new study program, the KUAS Council first proposes and appoints a committee to draft the new study program, which creates a proposal according to a predefined activity schedule. In drafting the proposal for the new study program, numerous data and information are analyzed. Primarily, this involves the labor market survey, potential employers, competencies needed based on market demands are defined, along with the learning outcomes required to achieve them, other similar study programs in the country and abroad are compared, etc. Recommendations for educational enrollment policy and

scholarship policy (Recommendations for educational enrollment policy and scholarship policy) are also taken into account, which, based on forecasts of the position of certain professions in the labor market, provide recommendations regarding the need to increase or decrease the number of students enrolled in specific educational programs. The completed proposal is sent to KUAS Council members for discussion, and they are invited to provide their remarks, comments, and suggestions. In the case of a larger number of remarks, suggestions, and comments, a thematic session is organized where opinions about the program are harmonized. Finaly, the President of the Committee for the development of the study program presents the program at the Council meeting, taking into account the remarks, and a decision is made on the adoption of the study program proposal. After the KUAS Council adopts the program proposal, the program is forwarded to the members of the KUAS Management Board, who decide on the study program by issuing an opinion in the form of a decision. Thus, the study program undergoes multiple reviews within the institution itself before being submitted for initial accreditation to the Agency for Science and Higher Education. The process of developing a new study program or improving existing ones involves the opinions of internal and external stakeholders. In mid-2024, KUAS submitted two professional short studies for accreditation, which received a positive opinion from the Expert Committee during the study program accreditation process. Based on the positive report from the Expert Committee, which contains an analysis and evaluation of the quality of the new study program, it can be concluded that all necessary processes for developing new programs are consistently implemented at KUAS.

The key indicators for monitoring the quality of study delivery and the methods of gathering and analysing the necessary information resulting in reports with proposals for improvement of the programme have been defined. In order to create an effective learning environment and to support the students, there is an evaluation of the students' workload, progression, pass rates and completion of studies; as well as the effectiveness of student evaluation processes; the students' expectations, needs and satisfaction with the programmes, and the learning environment and fitness for purpose of the programme support services.

The Quality Assurance and Improvement System (QAIS) of KUAS analyzes the quality of study program delivery. Procedures for collecting and analyzing various data are described in the Quality Assurance Manual (Manual). Study programs are subject to continuous quality checks to maintain satisfactory and expected standards and improve the quality of study programs. The Manual defines key performance indicators for monitoring the quality of study program delivery, methods for collecting and analyzing necessary information, resulting in reports with proposals for program improvement (further explained in chapter 1.2). The review of existing study programs aims to continuously improve them so that learning outcomes better meet the needs and expectations of students, as well as labor market demands. All changes to study programs are adopted by the KUAS Council. The following procedures, as defined in the Manual, are used in program reviews: analysis of the attractiveness of study programs, assessment of student workload using ECTS credits, analysis of student satisfaction with the study program, analysis of student satisfaction with the final professional practice, and analysis of employer satisfaction with the study program. Student suggestions collected during

discussions between mentors and students are also used. The analysis of study program quality answers a range of questions: Does the study program and its intended learning outcomes meet student expectations? Are the intended learning outcomes achieved through the program? Are the teaching and assessment methods within individual courses aligned with the expected learning outcomes? Do the learning outcomes satisfy labor market needs and employers? What is the employability rate of graduates, and so on? All stakeholders in the educational process: students, teachers, and employers are involved in ensuring and improving the quality of study programs. Additionally, the basis for the continuous improvement of study programs includes results from analyses of exam pass rates, studies of academic success, data on graduate employment, student evaluations of teaching quality, teacher self-evaluations, and more. Below are several examples of study program changes that resulted from such processes. In one course of the first-year of undergraduate study, an extremely low pass rate was observed alongside an above-average workload per ECTS credit. In the initial changes made, the number of lecture hours and ECTS credits for the course were increased, which resulted in only slight improvement in the indicators. As a second step, the course was lightened by moving some learning outcomes and associated teaching units to related courses in later years, where they are more appropriate. Although workload measurement has been conducted over the past 10 years, only minor changes had been made to the study program until this year. In the first half of 2024, a radical change was made to the study program, primarily in the undergraduate Agriculture program, which will be applied from ac. year 2024/2025. Monitoring student progress, pass rates, and completion rates is conducted from the time of enrollment to graduation. Data on student careers, including their academic progress, are regularly collected and analyzed on an individual or group level, in accordance with the General Data Protection Regulation (GDPR). The results of these analyses are used for strategic management, study program modifications, improvement of teaching methods, and proactive responses to potential bottlenecks in student progress. The results of quality monitoring processes are publicly published on the KUAS website under the section for Quality Assurance and Improvement (Quality assurance and improvement).

#### Changes to study programmes and current versions of study programmes have been recorded.

Changes are documented, compared to the previous version, and presented to the KUAS Council (previously mentioned Council members), who decide on the proposed changes. The recorded changes are regularly part of the minutes of KUAS Council meetings. Accepted changes are incorporated into the existing study program, and the current versions of the study programs are published on the KUAS website in the form of Course Plans for all courses within the study programs, following approval by the Council and before the start of the next academic year. For the purpose of tracking changes over the years, previous versions of the study programs are archived.

Study programme content enables the achievement of the intended learning outcomes.

The content of KUAS's study programs enables the achievement of the intended learning outcomes. Learning outcomes at the study program level are determined after defining the necessary competencies, which are based on labor market needs. Subsequently, courses are proposed that contribute to these outcomes through the individual learning outcomes of each course. In the course plans for each course, the teaching units or content are presented, and in the constructive alignment, the connection between learning outcomes, teaching units or content, teaching methods, and ultimately the assessment methods is shown (<u>Teaching plan undergraduate study Agriculture</u>; <u>Teaching plan Graduate study Agriculture</u>; <u>Teaching plan Graduate study Management in agriculture</u>).

The content of study programmes follows the latest scientific / artistic and professional research in a given discipline, ensuring that the programmes are up to date and compatible with the changed needs of society and the students' needs and expectations.

The study programs are designed to ensure that they remain up-to-date, aligned with the changing needs of society, and responsive to the needs and expectations of students. KUAS's undergraduate study program is primarily designed to cover knowledge and skills related to primary agricultural production, while ensuring the necessary alignment with the changes accompanying that production. This is ensured in part by the number and types of courses that demonstrate this, and in part by the content of the courses and the methods of delivering them. The modernity of the study programs is ensured in several ways. From the list of courses and their teaching plans (Teaching plan undergraduate study Agriculture; Teaching plan Graduate study Agriculture; Teaching plan Graduate study Management in agriculture), particularly the learning outcomes, in both undergraduate and graduate study programs, it is evident that the courses reflect current trends in the field and prepare students for various challenges in agriculture. From the learning outcomes of individual courses, it can be seen that they prepare students to adapt to climate and environmental changes, care for the welfare of domestic animals, implement sustainable farming systems, manage quality, navigate the agricultural product market, conduct successful business operations, understand agricultural policies, and utilize rural development measures. The achievement of these learning outcomes is largely supported by practical exercises, professional practical trainings, fieldwork. KUAS conducts numerous research projects involving students, almost all of which are related to changes needed in agricultural production to cope with the increasing number of challenges. Teachers continuously improve their professional skills and incorporate their experience in professional and scientific work into teaching content and teaching methods.

### The content of study programmes allows students to acquire and perfect their digital skills, where applicable.

In all study programs, regardless of the level, there are courses where the main goals and learning outcomes, and consequently the content, are dedicated to the development of digital skills, such as *Application of Mathematics and Informatics in Agriculture*, *Information Technology and Research in Agriculture*, and *Business Informatics*. Furthermore, the content

of the study programs allows students to acquire and refine digital skills by introducing and using various digital tools (virtual tools, platforms, etc.) in teaching, where students actively participate. This occurs whether the students are working independently, as part of a team within KUAS, or using digital solutions to communicate with stakeholders (project teams, partners, etc.) outside KUAS as part of a course. Students are placed in situations where they develop the ability to find, evaluate, use, share, and create specific content using digital media. They also learn to autonomously and strategically find and critically assess the validity of information. This is especially evident in the preparation of seminar papers, searching for literature sources for various tasks, integrated project assignments, and other forms of activities included in the course, depending on the course program. In addition to regular classes where this is applied, students are also involved in various projects, often led by KUAS faculty members. Additionally, the development of digital skills is fostered through projects aimed at developing soft skills, where digital skills are often necessary for success.

### The study programmes content ensures horizontal and vertical student mobility in the national and European education area.

Horizontal mobility at KUAS is enabled in several ways. Students can transfer from related undergraduate and graduate programs to KUAS's study programs, under the conditions set out in the Decision on the Conditions for the Transfer of Students from Related Programs to KUAS's Programs (Decision on the conditions for the transfer of students from related studies to studies KUAS). There is also the possibility of enrolling in a different study program at the same level as the one the student completed at KUAS, with recognition of prior learning and a determination differences through bridging program  $(31\ 3)$ Decision o uvi upisa i stj dipl.pdf (vguk.hr). According to the Study Regulations, KUAS students can change their status from full-time to part-time within the same level of study (but not vice versa). Furthermore, horizontal mobility is available for students who wish to attend one semester at another higher education institution. According to the Study Regulations (Study regulations), students may study at KUAS as guest students for one semester, and upon their return to their home institutions, the learning outcomes achieved at KUAS are recognized. This is most often applied in the framework of Erasmus+ mobility. Conversely, the same international mobility program allows KUAS students to study abroad, with the learning outcomes recognized by the institution where they studied, regulated by the International Mobility Regulations within the Erasmus+ program (Rulebook on international mobility within the Erasmus plus program). The content of study programs also ensures vertical mobility, allowing students to continue their education at KUAS or at other related professional and university programs, primarily in Croatia but also abroad. Some students complete only the undergraduate program and enter the labor market, while most continue their studies in KUAS's graduate programs, a trend that has increased in recent years. A certain number of students continue their studies at university-level graduate programs in the same field, where their previously obtained learning outcomes are either fully recognized or require minimal supplementary coursework due to non-alignment of specific courses. A smaller number of students continue their studies in non-agricultural fields, primarily in professional graduate

programs in social sciences, especially economics. The extent of learning outcomes recognition and bridging exams is determined by each institution individually, but the fact remains that vertical mobility is possible. A small number of students continue their studies abroad. We can confirm that vertical mobility exists for international studies. Several KUAS students have continued their graduate studies in Slovenia (Maribor), the Netherlands (Dronten), and Austria (Vienna).

#### It is ensured that the ECTS points are aligned with the actual student workload

The Quality Assurance and Improvement Manual provides for a procedure to assess the actual student workload for each course and compare it with the assigned number of ECTS credits. The results are then presented to the teaching staff and publicly published on the KUAS website (Reports). The assessment of student workload is conducted through a survey aimed at measuring student workload, which is carried out after the completion of a course and passing the exam. In the survey, students record the time spent on all activities related to the course, such as the preparation of seminar papers, preparation for midterm exams, taking written and/or oral exams, completing project assignments, and other activities outlined in the course syllabus. The survey is adjusted for each course based on the defined activities. During this process, the objectivity of students is crucial as they independently assess how much time was needed to complete specific activities in a given course. Therefore, students are repeatedly familiarized with the credit allocation system and prepared to complete the survey. The obtained results are then compared with the number of ECTS credits assigned in the curriculum. Since the results for individual courses varied over the years, changes to the assigned ECTS credits were not made immediately, except in exceptional cases. Instead, for some courses, learning outcomes or methods and activities related to teaching and learning were revised, in accordance with the ECTS Users' Guide (2015) recommendations. Surveys were conducted over a ten-year period, and the results were presented to the teaching staff in thematic sessions. During this period, despite the variations in results, trends could be observed for individual courses, and a decision was made to align the assigned ECTS credits with the actual student workload. This will be implemented in the curriculum of the *Professional Undergraduate Study in Agriculture* starting from the academic year 2024/2025. After these changes are made, further verification of ECTS credits will continue through additional surveys. In Standard I: Institutional Governance and Quality Assurance, under Substandard 1.5, several examples of aligning ECTS credits with actual student workload are provided. Additionally, in Standard II: Processes for Developing and Continuously Improving Existing Study Programs, it is clearly defined that these processes include both internal and external stakeholders, are consistently implemented, and undergo a formal approval process within the institution.

## 2.3. Student practice is an integral part of study programmes, where applicable

Student practice allows acquisition of practical skills, in line with the intended learning outcomes, where applicable.

In all study programs at KUAS, professional practical training is given great importance; it is an integral part of the study programs and is described in the course syllabi with defined learning outcomes. During the practical training, students should apply the theoretical knowledge they have gained, but it should also serve as a method of learning and acquiring new knowledge and skills. Students primarily conduct their practical trainings during the first five semesters of undergraduate study program at KUAS, for which there are excellent conditions. KUAS has 46 hectares of land that includes fields, meadows, pastures, a vineyard, an orchard, a vegetable garden, a greenhouseand experimental fields in the area of plant production, as well as livestock practicums (cattle breeding, horse breeding, sheep breeding, goat breeding, poultry farming) and practicums for agricultural technology (various agricultural machinery and tools, lines of machinery for producing, preparing, and storing animal feed, seed selection machinery, etc.). KUAS has years of experience in organizing final practical trainings in cooperation with labour market. KUAS has over 200 signed contracts for conducting professional practical trainings with relevant economic entities and associations in Croatia. The final practical training can also be conducted abroad as part of the Erasmus+ mobility program or other programs and projects. In the course syllabi that include professional practical trainings and in separate courses for the final professional practical training, the goals, learning outcomes, and appropriate evaluation methods for the practical training are defined, which verify the achievement of the expected learning outcomes. In addition, the practical part of teaching in individual courses of both study programs is realized through field teaching, after which students analyze the collected data and information and prepare a report that they present to all students and teachers participating in the field trip. The final practical training in the sixth semester of the professional undergraduate program, or the fourth semester of the professional graduate studies, is primarily conducted outside of KUAS in cooperation with the labor market. Some students complete this practical training abroad within the Erasmus mobility program. The organization of the practical training is overseen by KUAS teachers appointed as practical training coordinators. Professional practical trainings allow students to achieve the expected learning outcomes described in the course syllabi of individual courses and the course syllabi for the final professional practical training (sixth and fourth semesters). The achieved learning outcomes from the final professional practical training are evaluated in two ways: by external mentors at the employer where the practical training is conducted and by the teachers/mentors and the committee for defending the practical training at KUAS. The final professional practical training in the professional undergraduate program lasts for 420 hours, while in the professional graduate studies, it lasts for 220 hours. Such a large number of hours in one semester undoubtedly contributes to the acquisition of practical skills in accordance with the expected learning outcomes. Expressed in ECTS credits, the professional practical trainings conducted within individual courses from the first to the fifth semester have been assigned 4 ECTS credits each semester, totaling 20 ECTS credits. Along with the final professional practical training, which has been assigned 18 ECTS credits, a total of 38 ECTS credits are allocated to professional practical trainings in the professional undergraduate program in Agriculture. Regarding the organization of professional practical trainings during the first five semesters of the undergraduate program in Agriculture, a somewhat modified

program will be applied starting from the academic year 2024/25. In the first year of study, part of the practical training that previously took place within courses will be separated into a new course titled *Fundamental Professional Practical training*, but the total number of allocated ECTS credits will remain the same. In the graduate studies, the final professional practical training has been assigned 22 ECTS credits.

#### Student practice is conducted systematically and responsibly.

Student practical trainings are carried out in a systematic and highly responsible way, which is the result of years of experience and continuous monitoring and improvement of this segment of the study program. As previously mentioned, the undergraduate study program includes two types of practical trainings: the practical trainings that students undertake during the first five semesters and the final practical training in the sixth semester in undergraduate study, while in graduate study programs, there is only a practical training in the final semesters of study.

The practical training during the first five semesters takes place as part of the courses in which the practical training is provided. It is primarily related to specific segments of agricultural production, as well as courses associated with it, as a way to achieve learning outcomes in which the student is directly involved in work through the practical training or indirectly through the development of Integrated Project Assignments that analyze a specific area related to the course in a given space (agro-climatic indicators, socio-economic aspects of rural areas, etc.) or economic entities (depending on the level of learning outcomes and the placement of the courses in the academic year). Integrated Project Assignments connect knowledge from multiple courses. Starting from the assumption that during the practical training students should be placed in situations they may later expect in their jobs, a series of Integrated Project Assignments have been designed through professional practical trainings, where students apply knowledge from different fields to solve tasks and problems from real situations in agricultural production or practical research. The content of the Integrated Project Assignments may vary, but it is important to ensure that they achieve the learning outcomes and gradually develop skills, starting from simpler tasks in the first year of study, such as data collection and processing, communication skills, and describing technological processes of production, to more complex tasks in later years of study. Students prepare professional reports, plans for improving production technology, propose solutions to problems, and measures for the development and improvement of production from technological and economic perspectives. As mentioned earlier, starting from the academic year 2024/25, a somewhat modified program for professional practical trainings will be implemented, whereby in the first year of study, part of the practical training that previously occurred within courses will be separated into a new course called Fundamental Professional Practical training, while a smaller part remains within individual courses.

The final practical training, as its name suggests, takes place in the final semester of the study program. All procedures are detailed and monitored. Students receive various forms of support and supervision throughout the entire process, from arranging the practical training to completing the practical training and taking the course for the final practical training. There is long-standing experience in conducting the course for the final practical training, and since the

beginning, there have been prescribed forms, instructions, etc., regulations on conducting the final practical training, and in 2024 a new regulation on the final practical training was adopted (regulation on the final practical training (September 2024), which consolidates the final practical training at both levels of study. Before starting the final practical training, the coordinators of the final practical training hold meetings with students to inform them about how to select a workplace for the practical training (Employer) and the procedures during the practical training. Students also receive written Instructions for conducting the practical training. Students often propose the employer themselves, and only occasionally request assistance from the practical training coordinator to find a suitable Employer. The coordinators establish contact with the selected Employer, and KUAS and the Employer sign a Cooperation Agreement. For some companies, there are permanent contracts that are only supplemented for individual students in the current year. Each student also receives an Practical training Referral Letter, through which KUAS confirms the student's placement at a specific practical training site. The Employer assigns a mentor for the practical training. Once the practical training has started and the student has become more familiar with the types of work at the practical training site, they are required to select a mentor from KUAS. This is usually a teacher at KUAS whose courses are related to the area of the student's practical training. The practical training mentor at KUAS, along with the student and the practical training mentor at the Employer, determines what the student should focus on and learn during the practical training. The overall realization of the practical training takes place along the relationship: student, practical training coordinator, practical training mentor at KUAS, and practical training mentor at the Employer. Students are expected to conduct research in their field of work or collect data for preparing a practical training report and/or for their final thesis. Therefore, the practical training mentor from KUAS is often also the mentor for the student's final thesis. The final professional practical training typically starts on April 1 of the academic year. However, depending on the needs of specific production processes, the practical training may begin earlier or later, may be interrupted and resumed, all in agreement with the practical training coordinator and the Employer. At the start of the practical training, students submit the Practical training Referral Letter and the Practical training Evaluation Form to the Employer, in which the Employer evaluates specific knowledge and skills of the student in detail (theoretical knowledge, practical abilities, independence in decision-making, etc.) during the practical training, according to the expected learning outcomes described in the Course Syllabus for the final practical training course. Upon completing the practical training, the student prepares a Report on the final professional practical training, which is signed and certified by the Employer, and evaluated by the mentor at KUAS. After the practical training coordinators receive the Reports and completed Practical training Evaluation Forms, an oral defense of the Report is organized before a three-member committee. Based on the Practical training Evaluation, the Report on the practical training, and the oral presentation, a final grade for the final professional practical training is determined, which is recorded in the student's index. The procedure for defending the professional practical training is recorded in the Record of the Defense of the Final Professional Practical training.

Starting from the academic year 2024/25, to the greatest extent, the mentoring of students during the acquisition of learning outcomes related to the professional practical training will

take place within the newly established Center for Academic Support and Career Development (Center for Academic Support and Career Development / KUAS), founded in June 2024.

Student practice forms a part of the study programme, and is organised outside the higher education institution, in cooperation with the industry, where applicable.

As mentioned in previous chapters, there are two types of practical training at KUAS. The practical training during the first five semesters of the undergraduate study program and the final professional practical training in the undergraduate and graduate studies. The practical training in the first five semesters is almost regularly conducted within KUAS. On the other hand, the final professional practical training, which takes place in the final semester of the study program, is almost regularly conducted outside of KUAS in collaboration with the economy and the civil sector. At KUAS, this professional practical training is undertaken only by certain students who wish to conduct specific scientific or professional research, which serves as the basis for their final or graduate thesis.

The higher education institution provides support to student practice mentors and organisations in which the students conduct student practice, through guidance programmes and/or training programmes for mentoring students during student practice.

As previously mentioned, students of the Polytechnic Institute complete their final practical trainings with a large number of different employers. The choice of employer sometimes depends on the student's place of residence. Given that there is not a small number of always the same employers, KUAS has not organized orientation and/or training programs for mentoring students in the practical training program so far. Nevertheless, any potential issues in conducting professional practical trainings with the employer are regularly and successfully resolved through communication between the supervisors and the practical training mentors at the Polytechnic Institute and the employers, as well as the mentors at the employer's side. Furthermore, employers or mentors at the employers are often former students of the Polytechnic Institute (alumni), who, based on their own experience, know well what is expected from the practical training. Regarding the practical training supervisors at the Polytechnic Institute, they are appointed by the Council of KUAS from among teachers with many years of professional experience (informal education). Occasionally, certain supervisors have participated in workshops related to professional practical trainings within various career centers existing at higher education institutions. In June 2024, the Academic Support and Career Development Center / KCA was established at KUAS (<u>Academic Support and Career</u> Development Center / KCA ). Within the center, workshops are planned to contribute to the personal and career development of students, as well as workshops for practical training supervisors to enhance their competencies in supporting students in organizing their final practical trainings and developing their careers.

The processes for monitoring and improving the quality of student practice are clearly defined, continuously implemented, and they involve internal and external stakeholders.

The processes for monitoring and improving the quality of student practical trainings are clearly defined, continuously implemented, and include internal and external stakeholders. An annual analysis of the quality of study programs, as well as professional practical trainings as their integral parts, is regularly conducted in accordance with the Manual for Ensuring and Improving the Quality of KUAS. The Manual prescribes processes for monitoring and improvement, as well as any corrective measures. Student practical trainings in the first five semesters are monitored and improved as part of the quality assessment processes of the courses in which they are conducted. In addition to this, due to identified needs for analyzing the satisfaction of certain students (enrolled in 2021/22) with the first-year practical training, a special survey questionnaire on satisfaction with the first-year practical training has been developed. This has been conducted since the academic year 2022/23, and based on the results of the conducted surveys, changes in the organization of the first-year professional practical training in the undergraduate program have been proposed. To determine student satisfaction with the final professional practical training, students are surveyed to establish whether the program and planned learning outcomes of the practical training meet their expectations, whether the planned learning outcomes are achieved through the program, whether the teaching and assessment methods within the course align with the expected learning outcomes, and whether the learning outcomes satisfy the job market, among other things. Examples of survey results can be found in the link Reports (Reports). The monitoring process of the final professional practical training involves, besides internal, external stakeholders, as explained in the previous element/indicator. Based on continuous monitoring of the number of students who complete the satisfaction survey for the final professional practical training, it has been observed that a large number of students either do not participate in the survey or, if they do, many do not pay enough attention when providing answers, even though the survey is conducted anonymously. Therefore, in the academic year 2022/23, a different approach to monitoring student satisfaction with the final professional practical training was adopted, and panels on the same topic were organized. The student response was satisfactory. It was also noted that students are much more open with this type of questioning than they are with precisely formulated questions and rating statements on a scale. Additionally, the practical training supervisors who direct students to practical trainings with selected employers talk to the students after the practical training to obtain feedback and the student's opinion on whether the practical training met their expectations and whether they had the opportunity to achieve the planned learning outcomes during the practical training.

### The collected and analysed information is used to promote good practice, and to initiate the actions needed for improvement.

Based on conducted surveys or panel discussions with students, recommendations from practical training supervisors, teachers, or mentors, or other indicators, and in accordance with the procedures prescribed in the Quality Assurance Manual, necessary preventive or corrective actions are implemented, and modifications are made to teaching implementation plans or study programs to improve the conduct of practical trainings. In standard I, substandard 1.5.

The quality assurance system is periodically improved and revised based on the results of the implementation of regular internal and external quality assurance procedures, the indicator Joint impact that internal and external quality assurance processes have on the development of the higher education institution is analyzed and monitored, individual examples of corrective actions are listed, and there are and more.

Examples of corrective actions regarding changes in the execution of professional practical trainings within courses in the first year of the professional undergraduate program are listed in chapter 1.5.

Student feedback after completing the final practical training with a specific employer is taken into account when organizing future final practical trainings. This helps avoid sending students to employers with whom a significant number of students have expressed dissatisfaction, often due to tasks they assess as inappropriate for their level of study, though this happens very rarely. On the other hand, employers who receive exceptionally positive evaluations from students are recommended to future student generations.

2.4. Quality assurance of lifelong learning programs is part of the internal quality assurance system of the higher education institution. This ensures that study programmes are relevant and up to date and that they meet the current social needs.

The mission statement and strategic planning process are the starting points for the development of lifelong learning programmes aligned with them.

The mission of KUAS, as a starting point for the Development Strategy for the period 2023 – 2028, includes lifelong learning programs as one of the ways in which KUAS aims to contribute to the sustainable development of Croatian agriculture, rural areas, and society as a whole. In the Development Strategy for the period 2023 – 2028, under strategic objective 2, the development of lifelong learning programs aligned with labor market needs is emphasized. As a prerequisite for this, a proposal for the Regulation on Lifelong Learning has been developed, which will be adopted in the last quarter of 2024. In accordance with the Development Strategy for the period 2023 – 2028, plans are in place to educate teachers on the creation of lifelong learning programs, improve connections with the Croatian Employment Service (HZZ), businesses, agricultural associations, and Local Action Groups (LAGs) in forming new lifelong learning programs. For this purpose, individual cooperation agreements have been signed or are in preparation with representatives of the economy, agricultural associations, and similar entities. The development of new lifelong learning programs is planned to be conducted in accordance with the Croatian Qualifications Framework (HKO) and labor market needs.

Internal quality assurance system of the higher education institution includes the processes for quality assurance of lifelong learning programmes.

The current Manual for Quality Assurance and Improvement from 2017 describes the procedures for ensuring the quality of all activities at KUAS. Unfortunately, among the described procedures, there is no process for ensuring the quality of lifelong learning programs. Therefore, the new Manual, which is currently being drafted and is expected to be adopted by the end of 2024, will include the processes for ensuring the quality of lifelong learning programs. Additionally, the procedure for proposing and the criteria for evaluating proposals for lifelong education programs will be described in the aforementioned Regulation on Lifelong Education. Despite the fact that quality assurance procedures were not prescribed in the Manual, satisfaction surveys have been conducted for each of the implemented lifelong learning programs, tailored to each specific program. For example, after completing the lifelong learning program "Training for Beekeepers," participants evaluated their satisfaction with the program by filling out a satisfaction survey regarding the quality of the instructors and the execution of the program. In the spring of 2024, an informal lifelong learning program called "Green Educational Program" was conducted as part of the SOFI (Smart Organic Food Initiative) project. Participants evaluated their satisfaction with the quality of the instructors, as well as the execution and content of the program, after the program ended. The majority of responses from the conducted surveys reflect high satisfaction with the implemented programs.

## Processes for the development of new lifelong learning programmes and continuous improvement of the existing ones are clearly defined and involve internal and external stakeholders.

The Regulation on Lifelong Education, for which a draft has been prepared, will regulate the lifelong education system at KUAS. The Regulation defines the types of lifelong education programs, the procedure for proposing and the criteria for evaluating proposals for lifelong education programs, the organization and method of program delivery, the bodies responsible for implementing lifelong education programs, their composition and tasks, as well as the quality management system for lifelong education programs. The assessment of the need for developing a specific program is based on the competencies sought in the labor market and other analyses of the needs of the community, as well as suggestions from teachers and other stakeholders at KUAS. Any teacher or group of teachers, an external client based on their needs (tailor-made programs), and other interested external stakeholders at KUAS can propose the initiation of a Program's development.

# The key indicators for monitoring the quality of lifelong learning programmes' delivery, as well as methods of collecting and analysing the necessary information, resulting in reports with recommendations for improvement, are defined.

The quality monitoring indicators for lifelong learning program delivery at KUAS have been defined in KUAS's Strategy for the period 2023-2028. The quality monitoring indicators include the number of workshops held on the development of lifelong learning programs, the number of teachers trained for developing lifelong learning programs, feedback from the Employment Agency (HZZ) on sought competencies in the labor market, feedback and recommendations from businesses, professional associations, and Local Action Groups

(LAGs), the number of accredited lifelong learning programs, the number of short lifelong learning programs for the needs of businesses and/or the local community, the number of participants in lifelong learning programs, and the number of lifelong learning programs requested by businesses or the local community. The methods for collecting and analyzing the necessary information will be elaborated in more detail in the new Quality Assurance Manual, which is currently being developed.

#### Lifelong learning programmes are aligned with the current economic and social needs.

Through collaboration with businesses, interest and professional associations as part of the second strategic goal, specific activities have been defined to connect with businesses, agricultural associations, Local Action Groups (LAGs), local communities, and regional selfgovernance in the formation of new lifelong learning programs, activities to improve existing programs, and the development of new lifelong learning programs in accordance with the Croatian Qualifications Framework (HKO) and labor market needs, activities to implement lifelong learning programs at the request of businesses or local communities (tailor-made), as well as the promotion of lifelong learning programs to external stakeholders. Lifelong learning programs at KUAS can be conducted as formal or informal. Existing lifelong learning programs at KUAS were developed in collaboration with businesses, through the analysis of social needs, or at the request of clients. In the past period, KUAS has created several lifelong learning programs; however, due to various reasons, only a smaller number have been implemented. For example, at the initiative and expressed need of a consulting company specialized in preparing tender documentation for EU funds, various tenders from Croatian ministries, as well as domestic and foreign funds, and training for applying for EU funds for farmers, KUAS developed a lifelong learning program for training project assistants in rural development. This company identified a significant need for training farmers in project development and management in rural development in the Koprivnica-Križevci County and neighboring counties, so it was logical to create such a program in collaboration with KUAS. The initial idea was that, in addition to development and accreditation, KUAS would also be the main implementer of the program. The program has been accredited. Within the EDUAGRI project, implemented as part of the Interreg cross-border cooperation program between Croatia and Hungary, a lifelong learning program was developed titled "Training Program for the Introduction and Implementation of Food Safety Systems on Agricultural Holdings," for which the procedure for submitting a request for accreditation to the relevant institutions is pending. In the development of this program, panels were organized, and surveys were conducted in which employers could express their opinions on the necessary competencies to be developed through the program. As part of the EQUIEDU project, which was also conducted under the Interreg cross-border cooperation program between Croatia and Hungary, two lifelong learning programs were developed: programs for the jobs of Equestrian Tourism Guide and Assistant for Working with Sport Horses. One of the objectives of the EQUIEDU project was to create two lifelong learning programs lasting 150 hours each in the field of horse breeding and equestrian sports, enabling KUAS to obtain a positive professional opinion from the Agency for Vocational Education and Training. The development of the programs progressed through several phases, with a specific area identified at the proposal stage where there is a need for practitioners/experts to be educated, and program titles designed based on conclusions from several expert meetings involved in the project and external collaborators closely related to horse breeding and equestrian sports. After the project was approved, visits to equestrian facilities were conducted to gather information on the required knowledge and skills for the proposed jobs in horse breeding to offer programs that have their place in the "market." The development of the programs involved designing content and organizing units and topics over the required time. Linking specific content and learning outcomes with corresponding themes and units is essential to ensure that conditions, methods of delivery, and assessment of student success are interrelated. The developed programs clearly reflect the stated competencies and learning outcomes and have well-structured teaching content aligned with all program components, allowing students to acquire the necessary competencies. Brochures for both programs have been printed as part of the project. A continuation of the EQUIEDU project is currently in the application process, which will provide KUAS with even better resources for implementing the proposed programs, and the programs are in preparation for agency evaluation. The training program for beekeepers is an accredited program developed in collaboration with beekeeping associations and in accordance with their interests. To date, one course has been held, but there is interest in conducting it again. KUAS also has an accredited Training Program for Vineyard-Winemaker, created within the Regional Network of Local Educational Institutions IPA-IV Human Resource Development project, but this program has not been implemented in the past five years due to insufficient student interest. In the past period, KUAS has also implemented a lifelong learning program developed upon request and in accordance with client needs. During March and April 2021, training was conducted for teachers from the secondary school "Arboretum Opeka" from Vinica in the Laboratory for Quality Control of Agricultural Reproductive Material. The training focused on the storage of plant genes, formation of gene banks, quality testing of vegetable seed species, and restoration of plant gene banks. The training was organized over five working days for a total of 38 hours. The purpose of the training was to equip teachers to independently collect, test quality, and store seeds to preserve plant genes within their institution and the project for establishing a regional competence center in agriculture "Arboretum Opeka." The training consisted of both theoretical and practical parts, emphasizing practical activities where teachers independently performed quality analyses of seeds on prepared samples. A short program titled "Renewable Energy Sources in Agriculture" has also been developed, which will be conducted depending on student interest. The learning outcomes of this program align with the current social and economic needs for transitioning to renewable energy sources, and it is primarily aimed at farmers. KUAS has implemented an informal lifelong learning program titled "Green Educational Program," which was carried out as part of the SOFI project, a project led by KUAS, and developed in collaboration with the Association for the Economy of Solidarity from Križevci, the Center for Lifelong Learning from Travnik in Bosnia and Herzegovina, and the Starkmacher Association from Mannheim, Germany, with support from the cities of Križevci and Travnik, as well as the Rhein-Waal University of Applied Sciences in Kleve, Germany. The program was intended for KUAS students but also for all external interested individuals engaged in agriculture, whether amateur or professional, who wish to improve their

existing production in line with sustainability principles and market trends that dictate an increasing need for healthy, domestic, and ecological products. In addition to topics related to primary production, program participants learned how to create a successful business plan and how to effectively manage a small agricultural enterprise. With the consent of the relevant ministry, according to the Decision on enabling enrollment for graduated students of the College of Agriculture in Križevci in subjects that are part of the study program they completed but did not enroll in during their studies, graduated students continuously enroll in individual courses they did not pass during their studies. This opportunity for further education due to job requirements or other reasons reflects the concept of lifelong learning. From the above, it can be concluded that KUAS offers a greater number of lifelong learning programs, some of which are accredited, while others are in preparation for accreditation. Despite this, the implementation and execution of programs are not satisfactory, and greater attention needs to be dedicated to promotion and attracting participants in the future.

## III. STUDENT-CENTRED LEARNING AND TEACHING – THE TEACHING PROCESS AND STUDENT SUPPORT

## 3.1. Learning and teaching are student-centred and ensure that all the intended learning outcomes are achieved

The study programmes, and the way they are delivered, are designed to encourage motivation, self-reflection and engagement of students in the learning process.

The teaching methods at KUAS are diverse, aligned with the expected learning outcomes, and designed to foster motivation, self-reflection, and student engagement in the learning process. They promote interactive and research-based learning, problem-solving, as well as creative and critical thinking.

In the study programs at KUAS, particularly the undergraduate program, a significant portion is dedicated to practical training. The role of practical training in KUAS study programs and its implementation are thoroughly described in Standard II: Study Programs, which outlines the structure and execution of study programs. This part of the study program promotes experiential learning, i.e. learning through work as the best model for acquiring knowledge and skills, where classroom learning and practical experience (on testing grounds/practicums at KUAS or outside in real professional environments relevant to the field of study) are fully integrated. This encourages students' self-reflection, allowing them to reconsider their theoretical knowledge. The integration of knowledge gained in the theoretical part with knowledge acquired during practical training in KUAS study program occurs in several ways. Teachers, course holders, or those responsible for the practical training segment possess relevant knowledge and skills, are present with students during their practical training, and encourage reflective behavior (for example, identifying which theoretical knowledge can help solve a specific task, such as how to properly prune grapevines). It is well-known that students prefer this learning approach compared to solely learning in the classroom, which makes them more motivated and engaged in the learning process. Additional motivation comes from the well-equipped facilities at KUAS, which, due to their capacities and variety, fully enable the achievement of learning outcomes. Courses for the final practical training (practical training in the final semesters) primarily take place outside of KUAS in real work environment. Students are particularly motivated by this form of learning because they can test their theoretical knowledge in real-world settings, especially since they choose the locations or businesses for their final practical training that align most closely with their interests or desired future employment.

Students' motivation in courses is also enhanced by other teaching methods. For instance, students are more motivated when the teaching is interactive and they are not just passive listeners. Modern teaching methods are incorporated, such as using multimedia, searching for various online resources, participating in quizzes, watching audio/video recordings, engaging in attractive presentations, and educational programs by external associates, as well as workshop activities. Furthermore, students show greater motivation to participate in the learning process in courses that include innovative forms of learning, such as community

service learning, a teaching method that addresses specific social problems related to the local community, state institutions, civil society organizations, etc., in national or international contexts. Students are also highly motivated during field trips.

Integrated project assignments are included in the study programs within the courses, linking knowledge from multiple subjects. Through these integrated project tasks, students are placed in situations they may expect in their future jobs, and it has been shown that teamwork positively affects students' motivation and engagement.

Students' expectations regarding study programs and their specific needs are monitored and met to the greatest extent possible, ensuring that teaching fulfills the planned learning outcomes of the study program and students' needs, while also motivating students and increasing their engagement in the learning process.

### The institution encourages various ways of teaching delivery and flexible usage of various pedagogical methods, in accordance with the intended learning outcomes.

KUAS implements various teaching methods aimed at achieving the expected learning outcomes. As mentioned in the previous section, a significant amount of teaching hours in the study programs is allocated to practical training, or experiential learning, with the level of this training depending on the year of study.

Regarding teaching methods, primarily in classrooms but also partially outside KUAS, most courses utilize a combination of direct instruction from the teacher, focusing on the material being taught (information transfer), alongside one or more additional methods integrated within the course. Achieving learning outcomes through independent student work is essential, but numerous collaborative learning methods, group discussions, problem-based learning, individual research, group projects, and others are also widely used. These methods are conducted through exercises, seminars, problem-based or project assignments, community service learning, and more.

In certain courses, collaborative learning is applied depending on the subject. This can involve paired learning (where two students solve a problem together, such as preparing a seminar paper and presenting the results to their peers under the teacher's supervision), teamwork (where students are divided into groups to tackle specific problems with agreed-upon task distribution within the team), or problem-based learning (where a small group of students defines a problem, gathers information, develops potential solutions, and presents the final outcome to their classmates). Teaching methods also include practical exercises, field trips, and others. In all these methods, to varying degrees, the teacher or a group of teachers is involved.

Additionally, there are integrated project assignments in certain courses that encompass knowledge and skills from multiple logically connected courses. The evaluation of these assignments involves multiple teachers. The contents of the integrated project assignments are designed to enable students to apply knowledge from various fields in solving tasks and problems from real-world situations in the area of agricultural production. The contents of these integrated project assignments can vary, but it is important that they ensure the achievement of

learning outcomes and the gradual development of skills. This starts with simpler tasks in the first year of study, such as data collection and processing, communication skills, and describing the technological production process, and progresses to more complex tasks in later years, where students take on various roles, such as: farm owner, agricultural production organizer, supplier, advisor, quality control inspector, or similar.

Students prepare professional reports, production technology improvement plans, propose solutions to problems, and suggest measures for the technological and economic development and improvement of production. There are also other examples of teaching and the use of various pedagogical methods in line with the expected learning outcomes related to specific courses and the methods of instruction.

#### The use of different pedagogical methods and techniques fosters interactive and researchbased learning, problem solving, and creative and critical thinking

As described in the previous chapter, various teaching methods are implemented in the study programs at KUAS, promoting interactive and inquiry-based learning. Students solve the assigned problems by using and developing their creative and critical thinking skills.

### The various methods of teaching delivery, pedagogical methods, and techniques of working with students are regularly evaluated and adjusted according to evaluation results.

The Study Regulations define the key criteria, rules, and procedures for assessing and evaluating student work and achievements. The evaluation criteria ensure fairness and transparency and are publicly published for all courses in the study program, i.e., in the teaching plan for each academic year. Each academic year, KUAS conducts evaluation surveys among students to assess teachers and their teaching methods across all courses in the study program. The analysis of survey results highlights the parts of the teaching process that need modification. Based on the evaluation results, changes are made, including adjustments to teaching methods, pedagogical approaches, and techniques used with students.

### Teachers regularly carry out the processes of revision of their own teaching practice to continuously improve the educational process.

Teachers analyze the quality of their teaching in accordance with the Manual on Quality Improvement and Assurance, allowing them to more easily identify weaknesses or potential shortcomings in teaching and student assessment, and to enhance the teaching process. Additionally, self-evaluation data enables responsible individuals, the teachers, to recognize common deficiencies and propose improvement measures. This process is conducted through a questionnaire in which the questions are designed to point to the desired level of a specific aspect of teaching quality, and the teacher assesses how well that level has been achieved. The teacher also evaluates the conditions and organization of teaching.

The aggregate score of self-evaluations are published in quality assurance reports (<u>REPORTS</u>). Furthermore, peer observation is also carried out, where fellow teachers attend the classes of a

specific teacher, provide their opinions on the teaching, and, if necessary, offer recommendations for improvement.

The methods of teaching delivery are adjusted to a diverse student population (non-traditional student population, part-time students, senior students, students from under-represented\* and vulnerable\*\* groups, etc.).

In addition to full-time students, KUAS also has part-time students, primarily those who are employed and therefore unable to attend morning classes. As a result, classes for part-time students are organized in a way that is best suited to their student status. Regular communication with these students, along with surveys, provides information that is then used to adjust class schedules. Over the years, several changes have been made to the schedule for part-time students based on feedback from these surveys, adapting to their needs.

As for the teaching methods, they are the same for all students, regardless of their status. However, part-time students occasionally benefit from hybrid teaching, where both in-person and online instruction is available through the previously mentioned platforms. This approach is particularly useful when a student is unable to physically attend a class, for example, due to illness, but can still participate online. This is made possible as all KUAS classrooms are equipped to support online teaching.

For older students who may not be sufficiently prepared to follow classes using advanced technologies, individual support is provided (from teachers, fellow students, etc.). There are established procedures for students with disabilities to obtain special accommodations for their studies, including adjustments to teaching and assessment based on their specific needs. This is regulated by the <u>Rulebook on the Study of Students from Vulnerable and Underrepresented Groups</u>.

All students, regardless of their year of study, have mentors, both course teachers and general academic advisors who help them address any questions or issues related to their studies, including teaching-related concerns.

## The institution ensures the use of state-of-the-art technologies to modernise teaching and achievement of the intended learning outcomes.

KUAS ensures the use of advanced technologies to modernize all forms of teaching, including lectures, exercises, seminars, practical training, and other instructional methods. The classrooms are well-equipped with ICT equipment and have good Wi-Fi coverage, allowing students to independently search various online resources under the supervision of teachers and to utilize multimedia in all types of classroom instruction. For laboratory and practical classes, KUAS is well-equipped with modern devices and other equipment.

KUAS also has a certain number of laptops exclusively for student use, including several for fieldwork purposes. Continuous investments are made in acquiring modern teaching and laboratory equipment, ICT tools for classrooms and faculty offices, and contemporary equipment for practical classes, ensuring the ongoing modernization of teaching and the achievement of expected learning outcomes.

Given that new technological solutions are being rapidly introduced in the field of agriculture, as well as in many other sectors, field classes are regularly organized to provide students with exposure to advanced technologies. These field trips involve visits to innovative farms, companies, and other economic entities, allowing students to familiarize themselves with the latest technological solutions.

## 3.2. The assessment and evaluation are objective and consistent, and they ensure that all the intended learning outcomes are achieved.

The criteria and methods of assessment and evaluation are clear and they are published before the beginning of each course. Students are familiar with them

The Study Regulations stipulate the mechanisms for assessment and evaluation methods. For each academic year, an implementation plan for all courses in the study programs is developed and approved by the KUAS Council before the start of the academic year. In the implementation plan for a specific course, the learning outcomes are constructively linked to the teaching units, teaching methods, assessment methods, and the corresponding student workload (ECTS credits). The criteria and methods for assessment and evaluation are mandatory components of the implementation plan for each course.

At the beginning of the course, each teacher publicly communicates the assessment and evaluation criteria to the students and further directs them to the KUAS website, where the evaluation criteria and all information related to the course can be found.

The criteria and methods of assessment and evaluation are aligned with the teaching methods and intended learning outcomes. They are being implemented in a consistent and objective manner. Mechanisms are in place to ensure that the assessments and evaluations are objective and reliable.

The implementation plan for each course outlines the assessment and evaluation methods aligned with the learning outcomes of the course. As previously mentioned, through constructive connections in the implementation plan, alignment is achieved between the defined learning outcomes, teaching methods, planned student activities, and assessment and evaluation methods. Each learning outcome is associated with the relevant teaching units through which that outcome is achieved.

The plan describes the teaching/learning methods, the assessment methods, and the estimated time required for students to achieve the learning outcomes, which includes direct instruction as well as estimated time for independent or group work. When selecting the most effective teaching and assessment methods, consideration is also given to the level of achievement and the knowledge area of the course.

The assessment allows students to demonstrate the extent to which they have achieved the intended learning outcomes.

Several workshops have been held at KUAS for all teachers to develop their student assessment skills, such as: Learning Outcomes and Assessment in Higher Education, Assessment and Peer Observation in Higher Education, and Collaborative Observation in Higher Education. Continuation of similar workshops is planned in the future. Additionally, some teachers attend webinars, workshops, and other events aimed at enhancing the knowledge and skills necessary for the teaching process. Some teachers also engage in self-education to develop their knowledge and skills related to assessment and evaluation methods.

### Assessment allows students to demonstrate the extent to which they have achieved the anticipated learning outcomes.

The acquired learning outcomes for a specific course are assessed and evaluated during the teaching process, with the final grade determined during the examination. The assessment of learning outcomes is conducted in accordance with the Study Regulations and the implementation plan for the course. Continuous assessment of learning outcomes is ensured through quizzes, seminar papers, case studies, assignments, practical work, integrated project tasks, attendance and participation evaluation, as well as other forms of assessment.

### Students receive feedback on their assessment results and, if necessary, advice and/or support in the learning process based on that feedback.

Students receive feedback on their assessment results. After evaluating a specific segment of the course, the teacher informs students of the outcomes, highlights the most common mistakes, and provides support to those who performed poorly. The teacher advises students on how to improve during class, during consultations, or through various digital communication methods, depending on the assessment component.

# The process of continuous assessment and monitoring of student performance enables the identification of students facing difficulties in regularly meeting academic obligations, allowing for timely support and assistance in their learning.

Students at risk of struggling with academic obligations are identified as early as their first year of undergraduate studies. In certain first-year courses, students take initial tests, and those who do not succeed are referred to so-called preparatory classes organized for them to build a better foundation for following the course content and achieving the learning outcomes. Continuous monitoring of student performance is conducted for all students. All teachers consistently record all assessment elements (class participation, passing quizzes, seminar presentations, etc.) and can promptly identify students who are struggling with their academic responsibilities, inviting them for consultations.

Additionally, KUAS appoints mentor teachers for each year who maintain regular contact with students of specific years and programs, continuously monitoring their achievements. This allows for timely identification of students facing difficulties in meeting academic obligations and providing them with necessary advice and support, while encouraging other students to

engage in peer support. Starting from the 2024/25 academic year, peer support through student mentors has also been introduced.

If a need is detected, students have access to contact persons for students from vulnerable and underrepresented groups, as well as the heads of programs and the vice-dean for teaching and students, for additional assistance.

### There is a formally defined appeals procedure that students are timely informed about and that is consistently implemented.

The KUAS Statute and the <u>Study Regulations</u> provide for the possibility of student appeals and feedback on assessment and evaluation results. Over the past five years, there have been no instances of students initiating an appeals process.

Assessment procedures take into account the special circumstances of study for specific groups of students (such as adjustments to examination procedures for students with disabilities) while ensuring that the anticipated learning outcomes are achieved.

As explained in the chapter on Teaching Methods, adjustments are made to accommodate the diverse student population (including non-traditional student population, part-time students, older students, underrepresented and vulnerable groups, etc.). Throughout their studies, KUAS considers specific student groups and responds as needed. For example, <u>guidelines</u> have been established for adjusted examination methods, and for part-time students, the timing and schedule of classes and exams are adapted accordingly.

Regardless of the adjusted methods of assessing learning outcomes, the same evaluation criteria are applied to all students for the anticipated learning outcomes.

The higher education institution has an established assessment and evaluation system that provides information on progress throughout the study and at graduation, both on an individual and group level. This serves as a basis for making informed decisions regarding study management.

Students receive feedback on assessment results verbally, through the publication of results using a code on the KUAS website, via the e-learning system Merlin, or other platforms, all while respecting data protection regulations. Teachers have publicly available information regarding consultation hours, where students can request insights into their results after assessments.

Mentors provide feedback on achievements both collectively and on an individual basis, helping students understand their performance, identify issues, and anticipate necessary improvements. Additionally, KUAS systematically monitors student progression to the next year of study, pass rates for specific courses, dropout rates, and similar metrics, all of which serve as a foundation for decision-making regarding study management.

If possible, the higher education institution conducts evaluations of assessments.

To date, KUAS has not implemented the evaluation of assessments. Double marking for most courses is not feasible, as typically only one teacher is responsible for each course. However, in the evaluation of certain learning outcomes, multiple teachers are involved simultaneously (e.g., presentations of integrated project assignments or defense of reports from final practical training), which enhances objectivity in grading.

Double evaluation is present only in the so-called commission exam, which a student takes if they are taking the exam for the fourth time, at which point a three-member committee is appointed. In the event of a student appeal regarding a grade, a three-member committee is formed to re-evaluate the previously graded written exam or to re-examine the student. As mentioned earlier, there have been no appeals against grades recently, but there are known cases from several years ago when a written exam was reassessed by a different teacher.

## 3.3. The requirements for student enrolment and progress, recognition and certification are clear, publicly available, and consistently applied.

The higher education institution consistently implements predefined and published regulations covering all the study stages.

KUAS has established and published regulations covering all phases of study and consistently implements them. The fundamental conditions for enrollment in specific study programs at KUAS are stipulated in the Statute and the <u>Study Regulations</u>.

Each academic year, the KUAS Council determines the enrollment conditions for studies, which are published in the enrollment announcements (for example, Enrollment 2024/2025 / KCA) for both levels of study. These announcements are made available on the KUAS website no later than 30 days before the first application deadline. Each announcement must include the following information: Application conditions, Information on required documentation, Enrollment conditions, Enrollment quotas, Application procedures, Application deadlines, Enrollment deadlines, Appeal processes

Candidates wishing to enroll in undergraduate studies must apply through the NISpVU system, while those applying for graduate studies do so via the NISpDS system, both of which are integrated on http://www.studij.hr.

For each enrollment year, the KUAS Council appoints a Committee for the Implementation of the Admissions Process, responsible for ensuring the consistent execution of the entire process, from applications to student enrollment.

The conditions for student progression through the study programs, specifically the criteria for enrolling in the next academic year, are published on the KUAS website (<u>Conditions to enrol higher years of study and list of elective courses</u>). The fulfillment of these conditions is verified by the student administration office, which utilizes data from the ISVU system.

The enrolment policy is in line with the national legislative framework, the mission and strategy of the higher education institution and it considers the capacity of the higher education institution and the context in which the higher education institution operates.

The enrollment policy is in accordance with the national legislative framework, the mission and strategy of KUAS, and takes into account the capacities of KUAS.

Enrollment quotas for each academic year are determined according to the Recommendations for Educational Enrollment Policy and Scholarship Policy (Area XVIII (hzz.hr)). These recommendations are based on analyses and forecasts of labor market needs for specific qualifications, analysis of relevant statistical data and indicators on the employment of unemployed individuals by educational program, data from the Employer Survey, and considerations of regional and local economic development strategies and plans, making them relevant.

According to these recommendations, enrollment quotas have not needed to be reduced, as they have remained the same for several years. However, KUAS has reduced the quotas for the professional undergraduate program for students in regular status by 40 enrollment places for the academic year 2023/24, in order to free up personnel and spatial capacities for the implementation of new study programs. The implementation of new study programs is in accordance with KUAS's Strategy, Strategic Goal II, Specific Goal 2.1. Study Programs, planned activity 6. *Implementation of the Professional Short Study Program in the field of agriculture*.

### The enrolment policy and the strategy to attract students are sensitive to the needs and difficulties of students from vulnerable and under-represented groups, and they both promote inclusion.

KUAS establishes the enrollment process in a way that ensures equality for all applicants. A public announcement is made by May 1st at the latest on the KUAS website. KUAS presents its study programs to high school graduates and organizes an Open Day. To continuously improve communication with target stakeholders, there are plans to expand the website's content, create promotional printed materials, and produce video content to present studies and KUAS's activities through social and electronic media, therefore, the Digital Marketing Strategy of KUAS was created which is oriented towards modern forms of communication with the target population.

The enrollment policy and student recruitment strategy are sensitive to the needs and challenges of students from vulnerable and underrepresented groups, as evidenced by the definitions outlined in the document "<u>Underrepresented and Vulnerable Groups in Higher Education in the Republic of Croatia.</u>" The majority of KUAS students belong to these groups, as they come from rural areas and smaller towns, from vocational high schools, travel for studies, and often work alongside their studies with significant burdens (non-traditional students). Most of their parents have lower educational levels, and upon graduation, they often become the first individuals with higher education in their families.

For these students, enhancing the social dimension is of utmost importance, in accordance with the <u>Action Plan for Improving the Social Dimension of Higher Education for the period 2023-2025</u>. KUAS has always paid significant attention to non-traditional students, and the organization of classes and teaching methods is adapted to their attendance capabilities, which includes distance learning to some extent. Furthermore, KUAS has a Student House intended

for the accommodation of regular-status students from lower-income backgrounds. The application for accommodation in the Student House is announced before the academic year begins, so newly enrolled students can apply starting from the summer enrollment period, following the <u>Regulationslations on Conditions and Procedures for Securing Housing Rights in the Student House</u> and amendments to those <u>amendments</u> to those regulations.

The criteria and procedures for the selection and enrolment of students prevent discrimination and bias. They are publicly available, consistently applied and thoroughly revised.

The right to enroll based on the same criteria applies to all candidates for undergraduate studies, who apply through the National Information System for Applications to Higher Education Institutions (NISpVU) and the National Information System for Applications to Graduate Studies (NISpDS), thereby preventing discrimination and bias.

The criteria for admission to specific study programs at KUAS are consistently applied and aligned with the current legal regulations, in accordance with the Statute and the Regulations on Studying at KUAS. These criteria are stated in the enrollment announcements, which are timely published on KUAS's website and in public media.

### The criteria and procedures for the selection and enrolment of students ensures the selection of candidates with appropriate prior knowledge, in line with requirements of the study programme.

The ranking of candidates for enrollment in the first year of the undergraduate professional study program is conducted based on the evaluation of grades from high school and the results obtained in the state graduation exam. Candidates are required to have a minimum grade of B in subjects covered by the mandatory part of the state graduation exam. Candidates who completed their secondary education before 2009 and were not required to take the state graduation exam will not earn points in the selection process based on the results of the state graduation exam if they do not pass it.

Candidates for graduate degree programs may apply if they have completed an undergraduate study program at KUAS or another higher education institution in the relevant field and have earned a minimum of 180 ECTS credits. Candidates who have completed an undergraduate study program in a different field may also apply, provided they have earned at least 180 ECTS credits. If these candidates are granted admission to the study program, they are required to enroll in and pass the necessary difference courses during their first year of study. Candidates applying for admission to graduate programs are ranked according to their academic success in the undergraduate program. KUAS does not have any additional prescribed criteria.

# The criteria and procedures for the selection and enrolment of students ensures the selection of candidates with appropriate prior knowledge, in line with requirements of the study programme.

The entire process of collecting applications from candidates, gathering application documentation, evaluating applications, and preparing provisional and final rankings for undergraduate and graduate studies is conducted by the Central Admissions Office established

by the Agency for Science and Higher Education through the website www.studij.hr. This ensures that any discrimination or bias from the University is excluded.

The higher education institution has established adequate procedures for fair recognition of higher education qualifications, study periods and prior learning, including the recognition of non-formal and informal learning, based on:

- compliance of recognition practices at the higher education institution with the principles of the Lisbon Recognition Convention;
- cooperation with other higher education institutions, quality assurance agencies and national ENIC/NARIC offices.

<u>Recognition of prior learning during enrollment in KUAS's</u> outlines the purpose, scope, and procedures for evaluating and recognizing prior learning acquired through formal, non-formal, and informal education. Recognition of prior learning is based on the principles of lifelong learning, equal accessibility, fairness, transparency, equal value of acquired and recognized sets of learning outcomes, and quality assurance.

Recognition of prior learning when enrolling at professional undergraduate program is available to students from other higher education institutions with similar or related curricula, without undergoing a selection process. A student who is approved for transfer to KUAS will have exams from courses recognized if the learning outcomes in terms of content, scope, and complexity correspond to at least 70% of the learning outcomes of courses at KUAS, with the decision made by the course holder. Along with the application, the student is required to attach the syllabus of the course for which they seek recognition of the passed exam.

Transfer to KUAS from related programs can only occur during the regular enrollment period of the current academic year. Most often, students in this status enroll in the first year of study, and during their studies, they may request recognition of prior learning for courses whose outcomes in content, scope, and complexity align with the course for which recognition is sought, which is verified by comparing the syllabi of individual courses. If full recognition of an exam cannot be granted due to differences in the aforementioned evaluation parameters, the course holder specifies which segments of evaluation the student still needs to fulfill. Thus, the recognition of prior learning for a specific course falls under the authority of the individual teacher.

To have an exam from previous studies recognized, the student must obtain the recognition form from the student administration, which, along with a certified transcript from the higher education institution where they studied, is submitted to the course holder who recognizes part of the exam or the entire exam.

A student who has passed an exam may have the passed exam recognized with the same or a different title, the same grade, and obtained ECTS credits, provided that the passed exam is from a course with the same or similar content, and the learning outcomes are comparable.

Additionally, students can transition from the status of regular student to that of part-time student while having their prior learning recognized, following the procedure for changing status.

### The higher education institution monitors and analyses students' progression, and ensures study continuity and completion.

KUAS monitors student success to determine how prior knowledge (assessed through high school performance) impacts academic performance and graduation rates. In accordance with the <u>Manual for Quality Assurance and Improvement</u>, KUAS conducts analyses of exam pass rates and overall academic performance, as well as graduation rates (as outlined in the attached tables).

### There are established mechanisms which allow the timely identification of students with difficulties in the regular fulfilment of their academic obligations.

The mechanisms that enable the timely identification of students facing difficulties in regularly meeting academic obligations are outlined in one of the previous chapters.

### The higher education institution provides conditions for student mobility in a national and international context.

Student mobility, as well as the mobility of teaching and non-teaching staff, is regulated by the Regulation on International Mobility within the Erasmus+ program. This regulation specifies the implementation of the Erasmus+ program for international mobility and outlines the basic principles of mobility for incoming and outgoing students, as well as incoming and outgoing (non)teaching staff at KUAS. It covers the rights and obligations of students and (non)teaching staff, the rights and obligations of the Erasmus mobility committee, the Erasmus coordinator, and the ECTS coordinator at KUAS, along with other issues significant for the implementation of the mobility program.

Regarding student mobility, whether incoming or outgoing, KUAS ensures the necessary conditions for mobility. It assigns a mentor from the teaching staff to incoming students and designates a student mentor who provides guidance and support throughout the mobility process. The Erasmus coordinator plays a significant role in organizing both outgoing and incoming student mobility and (non)teaching staff exchanges.

### The higher education institution issues a diploma and a diploma supplement (in Croatian and English, free of charge) in accordance with the relevant regulations.

KUAS issues a diploma and a supplementary certificate of study free of charge, in both Croatian and English, in accordance with the <u>Regulations on the Form and Content of Certificates</u>, <u>Diplomas and Diploma Supplement</u>, as well as the <u>Law on Higher Education and Scientific Activity</u>.

## 3.4. The higher education institution provides sufficient and easily accessible resources to support students

The higher education institution provides the students with learning support and provides the necessary counselling to ensure an optimal studying experience (e.g. tutors, mentors and other counsellors, student services and other relevant career guidance services for students, psychological counselling, legal counselling, support for students from vulnerable and under-represented groups, support for students involved in international mobility programmes, library services, etc.) at the institutional level.

The Križevci University of Applied Sciences (KUAS) provides a wide range of support to its students during their studies. KUAS has a well-established mentoring system that includes first-year mentors and mentors for the second and third years of study across all three study programs (a total of three mentors per year), as well as one mentor for graduate programs. The Vice Dean for Teaching proposes the mentors for the specific year of study, and their appointments are confirmed by the kuas Council before the start of each academic year. The selection of mentors takes into account that they are teachers who teach students in that particular year, ensuring frequent contact and accessibility for students.

Mentors of respective year of study encourage students to create a work plan for better organization and optimal time management. They discuss reasons for irregular class attendance or lower performance in certain subjects, provide advice on achieving necessary motivation and effectiveness, and remind students of their obligation for regular class attendance and independent study. They also provide information about extracurricular activities, such as educational courses, local community activities, and other relevant service information for students and youth.

Final-year students receive support from supervisors and mentors during their internships, who guide and mentor them throughout their practical work outside of KUAS. This guidance helps align students' interests and opportunities while advising and preparing them for future job selections. KUAS has established collaboration with the Croatian Employment Service (HZZ), whose staff conduct workshops for final-year students at both levels, familiarizing them with important steps for quick and successful employment, including resume writing and self-presentation to employers.

Additional support is provided by administrative services, the student office, the library, and other departments during students' studies. For students from vulnerable and underrepresented groups, such as those with part-time status, class schedules are adjusted whenever possible to accommodate their commitments, typically outside the standard schedule for full-time students. Exam periods are organized for them in the afternoons and evenings, and online classes are made available if they cannot fully adapt to the class schedule.

There is also significant support for students participating in international mobility programs, facilitated by the Erasmus coordinator.

For any questions, especially for first-year students who may find many aspects unfamiliar, students can, and do, reach out to their mentors daily. Additionally, KUAS has a relatively small student body, allowing for individual approaches to students or smaller group interactions.

In line with the activities outlined in Strategic Goal III, KUAS has established a <u>Centre for Academic Support and Career Development</u>. The goal of the Center is to contribute to students' personal development, academic success, increased retention rates, reduced dropout rates, and successful career development and employment. The establishment of the Center consolidates all previous forms of support for students while introducing new activities to provide systematic support from the first day of study until graduation and beyond.

The existing mentorship system has been further developed, and peer support has been introduced through the appointment of student mentors, who assist in academic and social adjustment to the new environment and improve communication among students of different years. In addition to the previously mentioned workshops conducted by Croatian Employment Agency staff for final-year students, the Center extends support to first-year students, organizing workshops that are important for their personal and career development.

#### Students are familiar with the various forms of support at their disposal.

As mentioned in the previous point, KUAS offers multiple forms of support for students. Students are informed about the types of support available to them from the very first day during the orientation for first-year students. Information about student support services is also published on KUAS website, and there are Guides for Prospective Students and a Study Guide (Enrollment Guide) in which students learn about the available support services.

Furthermore, student representatives are involved in the Student Council and are full members of various KUAS bodies, such as the KUAS Council, Quality Assurance Unit, Student Relations Committee, Study Improvement Committee, and other various commissions. In this way, they have information about different types of support during their studies and convey it to other students.

KUAS's teachers are available to students via email or during consultation hours, which teachers regularly announce. Students most often communicate through email. For any questions, students can reach out to the Vice Dean for Teaching Activity or the KUAS Secretariat.

### The higher education institution provides support to students for acquiring and developing digital skills.

During their studies, students across all programs have courses dedicated to the development of digital skills. In addition, the content of study programs facilitates the acquisition and enhancement of digital skills by incorporating and utilizing various digital forms (virtual tools, platforms, etc.) in teaching. Students are active participants, whether engaging in independent work or teamwork within the institution, and digital solutions are used for communication with stakeholders (project teams, partners, etc.) outside the institution, in which students participate as part of their coursework.

Moreover, students are involved in various projects, with a particular emphasis on those aimed at developing soft skills, which often require digital skills.

In today's world, we face new challenges: changing climate conditions and the need for sustainable food production. At the institution, we are aware that these challenges demand innovations in agriculture, where high technology plays a key role. Therefore, our students learn about sophisticated techniques that utilize automation, digitization, and data analysis to improve the efficiency and sustainability of agricultural practices, such as farm monitoring systems, GPS guidance (e.g., tractor navigation), drones, and more, through their courses, field trips, and attendance at conferences and demonstrations. In some courses and partially through practical training, they learn to use online administrative services such as ARKOD or AGRONET.

Student support is tailored to a diverse student population (part-time students, senior students, foreign students, students from under-represented and vulnerable groups, students with learning difficulties and disabilities, etc.).

Students from diverse populations receive support in the same ways as all other students, particularly through the newly established Center for Academic Support and Career Development. In 2024, a <u>Regulation on the Study of Students from Vulnerable and Underrepresented Groups was created.</u>

This regulation enables students from vulnerable and underrepresented groups to achieve academic success and progress in their studies, ensuring that necessary adjustments are made to the teaching process based on their specific needs. This is done to guarantee equal opportunities for studying.

The regulation governs rights related to exam accommodations, mobility adjustments, material rights, and more. The KUAS has always paid special attention to part-time students, ensuring that the organization of classes and teaching methods are adapted to their availability for attending classes.

Students from abroad are supported by the Erasmus coordinator, the vice-dean for teaching and students, teachers and students, as well as the expert services of KUAS.

The higher education institution systematically monitors the different needs of students, especially those from vulnerable and under-represented groups; it ensures conditions of studying and adapts the teaching methods and the test of knowledge and skills according to their individual needs.

KUAS is sensitized to the needs of students from vulnerable and underrepresented groups throughout their studies and responds as necessary. For instance, when the first student with a disability enrolled, guidelines for adapted examination methods were established.

Teaching methods at the University are tailored to accommodate the needs of part-time students. Classes for part-time students are organized during the breaks of full time student semesters, following a modified schedule. Some classes for smaller groups of students are conducted in a consultative manner.

Examination periods for part-time students are held outside the regular class hours (typically after the conclusion of all forms of student evaluation, starting from 1:15 PM onwards). By

decision of the University Council, examination periods for part-time students are conducted outside the pre-established deadlines (in the afternoon and evening hours) to allow working students to attend exams after their working hours.

### The higher education institution employs an appropriate number of qualified and committed professional, administrative and technical staff.

KUAS employs an appropriate number of qualified and dedicated professional, administrative, and technical staff for the study programs that are conducted at the institution, taking into account the number of students enrolled. The aim is also to employ a person who would exclusively focus on advising about studying and employment if the institution will have the opportunity, either within some project or through other means.

Students receive full support through the legal service, library, student service (student administration office), secretariat, various committees, and more. In addition to formal education, the staff at the institution gain experience to provide support by participating in various seminars and workshops for career advisors in higher education, among other activities.

# 3.5 . The higher education institution provides favourable conditions and support for students entering international outgoing and incoming mobility programmes.

### Croatian students are informed about the opportunities for completing a part of their studies abroad.

KUAS encourages international mobility in education and the individual development of students and supports them in gaining international experience, primarily through the ERASMUS+ exchange program. Students acquire the competencies necessary for working in an international environment (KUAS has signed <u>inter-institutional agreements</u> with EU countries as well as with so-called partner countries, such as Bosnia and Herzegovina and Montenegro). Information about the opportunities for outgoing and incoming international mobility programs is available on <u>KUAS's website</u>, in documents accessible to foreign students, and in published announcements and documents for domestic students.

In October each year, as part of the international celebration of Erasmus Days, KUAS students have the opportunity to learn about the possibilities provided by Erasmus mobility. Previous academic year's program participants, both students and teachers, share their experiences through examples of good practice, highlighting the benefits and unique aspects of their Erasmus mobility, while the Erasmus coordinator provides information about opportunities in the current year. Throughout the year, the Erasmus coordinator also informs students about announced calls for applications, reminds them of binding deadlines, and holds information meetings with students, attended by the Vice Dean, department heads, and supervisors of final

practical training, ensuring that students receive timely information about opportunities to gain international experience, regardless of whether they choose to study and need help selecting courses or decide to complete their final internship abroad.

International student mobility is regulated by the <u>Regulation on International Mobility within</u> the Erasmus Plus Program, allowing students to take the opportunity to not only study abroad but also complete an internship, thereby enriching their practical knowledge and skills in an international environment. Students also have the option of combined short-term mobility (Blended Intensive Programme), which includes physical mobility combined with online learning, incorporating a mandatory virtual component. Short-term mobility as part of combined intensive programs is considered mobility for study purposes and provides students with additional ECTS credits.

The higher education institution encourages students to engage in outgoing mobility programmes by organizing various promotion campaigns and providing information and a regulated and flexible way of recognising ECTS credits acquired during mobility programmes.

Through the organization of Erasmus Days, meetings, and individual consultations (as previously mentioned), students are informed about mobility opportunities. The Vice Dean, who is also the ECTS coordinator, along with the heads of studies, assist students in choosing courses to take at foreign institutions. Meetings with former students who participated in the exchange program during their studies are also organized for current students. Furthermore, students attend the presentations of internships completed by those who spent time abroad.

When foreign teachers visit the KUAS, students participate in their classes according to their specific field of study and the topic of the guest lecturer's presentation. Interested students are encouraged to join, with additional opportunities for individual discussions arranged by the Erasmus coordinator to enhance student interest and prepare them better for their time at the foreign institution.

Based on the documents detailing the credits earned during the outgoing mobility period, the ECTS coordinator manages the process of recognizing courses (or parts of courses) with the consent of the respective teachers and the recognition of acquired ECTS credits. When comparing and assessing the compatibility of study programs and individual courses, the principle of maximum flexibility is applied. The experience of being abroad helps students gain confidence and self-esteem, as well as respect for diversity in the context of different cultures, traditions, and customs, and acquiring new competencies for working in an international environment or continuing their studies at a foreign institution.

### The higher education institution provides support to students in applying for and carrying out exchange programmes.

The Erasmus coordinator assists students in the demanding administrative process, establishes initial contacts with foreign institutions and mentors, and provides help in obtaining visas (if required) and securing additional financial support. The vice-dean, heads of study programs,

and mentors of specific years of study aid students in selecting courses that will be most likely recognized upon their return from the exchange. All necessary information is available to students on the KUAS website, and it is updated in a timely manner.

### The higher education institution ensures the recognition of ECTS credits gained at another higher education institution.

KUAS ensures the recognition of ECTS credits earned by students who participated in the Erasmus mobility program for completed teaching obligations in specific courses (either fully or partially) or for their internship. KUAS has <u>regulations regarding the evaluation and recognition of prior learning</u> and <u>international cooperation</u>, which outline the purpose, scope, and process of evaluating and recognizing credits earned through mobility.

The comparison and assessment of the compatibility of study programs and courses, as well as the recognition of ECTS credits, grades, internship periods, and other aspects, are carried out by a committee based on the proposal of the ECTS coordinator and the Vice Dean for Teaching. As previously mentioned, the principle of maximum flexibility is applied when comparing and assessing the compatibility of study programs and specific courses, as well as in the recognition of ECTS credits.

Information on the opportunities for enrolment and studying is available to foreign students in a foreign language. The higher education institution is engaged in actively attracting foreign students to come to mobility programmes and/or enrol in a study programme and obtain a full qualification.

Incoming international students have access to information about studying within the Erasmus study stay or internship programs at the KUAS in English on the KUAS website (ERASMUS+/KCA). KUAS has signed numerous inter-institutional agreements that facilitate mobility, and there is an interest in signing new agreements as well. Foreign students who stay at KUAS under the Erasmus study program can attend selected courses in English, and the information is easily accessible on the institution's website.

KUAS has signed 41 inter-institutional agreements for Erasmus mobility. When comparing and assessing the compatibility of KUAS's study programs and individual courses with those from foreign institutions, KUAS makes every effort to accommodate incoming students. They are allowed to take courses and earn credits based on their interests, regardless of whether certain courses are being offered to domestic students in the current semester or if they are elective courses not available in the current academic year. During outgoing mobility at foreign institutions, KUAS teachers inform local students and faculty about the opportunities for mobility at KUAS, thereby promoting incoming mobility.

The higher education institution provides support to foreign students during enrolment, integration and studying at the Croatian higher education institution.

Students coming through the ERASMUS+ mobility program have all the student rights and obligations as Croatian students, in accordance with applicable procedures and regulations at the national level. Incoming students receive support from teachers in specific courses, student mentors, the Erasmus coordinator, the vice-dean for teaching and studies, program heads, and internship supervisors in undergraduate and graduate programs at the KUAS. Participants in the mobility program return extremely satisfied and happy to have participated in the Erasmus program at KUAS, recommending it to their peers. This is confirmed by Erasmus coordinators from partner institutions, as well as through ongoing collaborations and the renewal of interinstitutional agreements.

### Foreign students have the opportunity to attend classes delivered in a foreign language (English).

Classes for international students are generally organized in English, and for a few subjects, instruction is also available in German. Although not all teachers deliver their courses in a foreign language, the coverage of subjects is quite satisfactory.

#### Croatian language courses are delivered for foreign students at an institutional level.

Learning Croatian for international students is not provided at the institutional level.

The higher education institution gathers and analyses feedback on the satisfaction of students involved in outgoing and incoming mobility with the quality of support provided by the higher education institution and actively informs students and other stakeholders about the interventions and improvements.

The KUAS collects data on student satisfaction based on individual final reports that students are required to fill out in a questionnaire generated by the Beneficiary Module tool after completing their mobility. All participants in the mobility abroad present a report upon their return about what they did, how they integrated into student life at the foreign institution (from accommodation and meals to the availability of mentors and professors for consultations and the use of libraries and other resources), as well as how they spent their free time and socialized with local and other Erasmus students. Presentations about the Erasmus+ mobility program are usually held during Erasmus Days and the University Day. During outgoing mobility, all participants represent KUAS and our opportunities for mobility to incoming students and teachers. Students who study at foreign institutions or in foreign companies return extremely satisfied with improved foreign language skills, enhanced competencies and skills, as well as new knowledge in their specific field of future employment. They also speak positively about the new cultural insights they gained about the country and its people, agriculture, and education. In this way, KUAS ensures a European dimension in the existing study programs. Supporting this is the fact that in the last five years, a total of 54 students have participated in the Erasmus mobility program, which is satisfactory considering the total number of KUAS students and the two years of the Corona virus pandemic. The Erasmus coordinator actively reports to students and other stakeholders about the interventions and improvements made.

## IV. TEACHING CAPACITIES AND INFRASTRUCTURE OF THE HIGHER EDUCATION INSTITUTION

### 4.1. The higher education institution ensures adequate teaching capacities

The higher education institution has an adequate number of teachers employed full time at the scientific-teaching or artistic-teaching positions (for universities or constituents of the university), or an adequate number of teachers employed full time at teaching positions (for Universitys / universities of applied sciences), along with an appropriate number of teachers in the scientific field in which the programme is being delivered (21 teachers at universities, at least 3 of which are from said scientific field; at least 7 teachers at a faculty or arts academy, at least 3 of which are from said scientific field; and 7 teachers at Universitys / universities of applied sciences, at least 3 of which are from said scientific field).

KUAS conducts the *Professional undergraduate study of Agriculture* in the biotechnical area, in the field of agriculture. A total of 28 teachers from KUAS are in charge of the study program, employed in a full-time teaching position, of which 20 are in the area and field to which the study program belongs. KUAS also employs 3 assistants in the area and field of the study program, and one professional associate.

KUAS conducts *Professional graduate studies in Agriculture (focusing on Sustainable and Organic Agriculture)* in the biotechnical area, in the field of agriculture. 21 teachers from KUAS are in charge of the study program, all of them are employed in full-time teaching positions, and 16 of them are in the area and field to which the study program belongs

KUAS conducts the *Professional graduate study Management in agriculture* in the area of social sciences, in the field of economics. The study program is staffed by 7 full-time teachers from KUAS, of which 3 are in the area and field to which the study program belongs. Since students of this study can choose elective courses from another graduate study at KUAS, and these elective courses are exclusively taught by KUAS teachers employed in a full-time teaching position, the total number of KUAS teachers is far greater than 7 teachers (minimum required), as previously stated.

At philological studies, a maximum of half the teachers may be employed to teaching positions of language instructor, senior language instructor and language instructor advisor.

The ratio between the total number of enrolled students and the total number of full-time teachers and those with nominal teaching titles does not exceed 30:1 (when calculating the ratio, the number of working hours of teachers who are not employed full time is added up to the number of working hours required of a full-time teacher).

KUAS has a favorable teacher: student ratio, which enables the excellent availability of teachers to students. In academic year 2023/24 the teacher: student ratio is 1:7. The calculation

was made according to the instructions in <u>Table 1a</u> (Analytical appendix to Self-analysis – tables and notes).

### The total annual teaching load of all teachers does not exceed 20% of the total annual teaching load (in the case of public higher education institutions).

The workload of KUAS teachers is harmonized with the <u>Law on higher education and scientific activity</u> ("Official Gazette", No. 119/2022) and the <u>Collective agreement for science and higher education</u> ("Official Gazette", No. 9/2019).

Tables 1b-1 to 1b-3 show the workload of all teachers and the share of teacher responsibilities expressed in the total number of contact hours by study program and teacher contact hours/program contact hours (%). KUAS employs full-time teachers who conduct courses in the undergraduate professional study of Agriculture with a total value of 96% of contact hours, in the professional graduate study of Agriculture 88% of contact hours, and in the professional graduate study of Management in Agriculture 75% of contact hours of all forms of direct teaching, which much more than 35% of all forms of direct teaching for vocational studies. If the contact hours are converted into standard hours, using the example of one academic year, the total annual workload on all study programs for all KUAS teachers in a year is 13753 standard hours. Teaching is conducted by 28 teachers and three assistants working full-time at the University, from which it follows that the average teaching load is 443.66 standard hours per teacher/associate permanently employed at KUAS and does not exceed 450 standard hours. Therefore, it can be concluded that the total annual teaching load of all University teachers does not exceed 20% of the total annual teaching load. In the existing study programs of KUAS, in the total teaching load, the share of teaching by external associates is not high, it differs by study and course, but no external associate teacher has a full teaching norm at KUAS and engagement in the total hours of all study programs is very low, about 1000 normal hours.

### Total annual teaching load of an individual teacher does not exceed 20% of the total annual standard teaching load.

As a rule, the total annual teaching load of an individual KUAS teacher does not exceed 20% of the total annual teaching load. Some teachers may have their workload increased by more than 20% (more than 540 standard hours) in a particular academic year, which is solely related to the interest of students in the elective courses they teach. If we look back at the average workload calculation in the past year, there are only 6 teachers who had a slightly higher workload than the 540 standard hours in the academic year. In table 4.2. the presentation form shows the teaching load in the academic evaluation year for teachers and associates of KUAS, expressed in contact hours. External associates, although not to a large extent, also influence the lower engagement of KUAS teachers. Four external associates were hired at the Professional Undergraduate Studies in Agriculture, two at the Professional Graduate Studies in Agriculture. External associates, four of them, are engaged in the performance of eight compulsory courses at the undergraduate study with a total teaching load of 570 standard hours, and only one

external collaborator independently conducts all the teaching in the course, while the others are co-implementers of part of the teaching of an individual course. At the graduate study of *Agriculture*, two external assistants are hired for three elective courses, therefore, depending on the students' interests, the share of teaching in the total number of standard hours varies, and it cannot represent their full teaching standard. Five external associates are engaged in the graduate study of Management in Agriculture, four are engaged in one compulsory course with 40 to 50 standard hours each, and one teacher is engaged in three elective courses, so her engagement depends on the students' interest in those courses in a particular academic year. year, but does not represent a full teaching load.

## Teachers' workload ensures appropriate distribution of teaching, scientific/artistic activities, professional and personal development and administrative duties.

Teaching, scientific and administrative duties of teachers are not completely evenly distributed, but despite this, all teachers have the possibility of professional and personal development. For example, considering the larger number of students in the first year of undergraduate studies, there is a slightly greater engagement of teachers in tasks that are considered an integral part of the teaching load, such as: consultations, corrections of seminar papers, practice diaries, exams, colloquiums. There is a greater engagement of teachers in courses taught by only one teacher, due to, for example, colloquiums and assignments, compared to teachers in higher years of study. On the other hand, teachers in higher years of study are more engaged in final professional practice mentoring and final theses.

# All teachers, including external associates, are qualified for the courses they deliver, have relevant work experience and integrate the latest trends and knowledge from the labour market into the teaching process.

KUAS provides extremely good teaching capacities for the implementation of study programs and the acquisition of the expected learning outcomes, since at KUAS each course is "covered" by teaching staff chosen for the profession in the area and field of course delivery. The vast majority of teaching staff are our own teachers (Tables 4.1.b., 4.2. and 4.3. of the form). There are a total of 28 KUAS teachers, 4 of whom are lecturers, 6 senior lecturers, 18 professors of professional studies, 13 of whom are permanently selected, and 3 assistants. Of the 28 teachers employed at KUAS, 20 of them are PhDs (there are 4 other teachers or assistants on doctoral studies), 3 are masters of science, 6 have professional masters degree and 2 are engineering graduates. KUAS also has 8 teachers with scientific titles, 7 scientific associates and 1 scientific advisor with a permanent title.

External associates (teachers) also have a valid choice in the area and field of course delivery. Out of a total of 10 external associates, 5 are PhDs, 2 are Masters of Science, and one is a mathematics professor, a veterinary graduate and a law graduate. As for the title of external associates, 9 of them are in the teaching title and one is in the scientific-teaching title of associate professor. Two external teachers are lecturers, three are senior lecturers and 4 professors of professional studies, of which 2 are permanently selected. In addition to the

teaching title of professor of professional studies, there are three external associates and assistant professors (in the scientific teaching title).

In the entire process of promotion, teachers must meet the criteria in professional and scientific work, and outside of class they are engaged in professional and scientific projects, cooperation with the economy, interest associations or associations, etc., and follow the latest trends and knowledge from the labor market, therefore can conclude that there is a high qualification of KUAS teachers and external associates for the courses they teach.

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

The higher education institution has developed and regularly updates the staff recruitment policy and plan in order to ensure adequate teaching capacities. The overall process of attracting, applying selection methods, selecting and recruiting, as well as professional development and promotion of the teaching staff is based on professional, objective and transparent procedures and criteria which promote excellence and are consistently applied.

KUAS regularly updates the staff recruitment policy and plan to ensure adequate teaching capacities. Records are kept (in electronic form, but also archived in paper form) on the status of each employee, as well as the teaching staff. Professional services, the secretary of KUAS and the person in charge of personnel issues are responsible for this. Each specific recruitment is considered by the Dean's Commitee, taking into account the needs of the study programs, and the KUAS Council considers the initiation of each individual recruitment procedure for a teaching or associate position. It should also be emphasized that as a public higher education institution founded by the Republic of Croatia, any employment must be approved (given a permit) by the Ministry of Science, Education and Youth (MZOM). Obtaining a permit is related to the termination of the employee's employment relationship, most often due to retirement or other reasons. This limitation makes it much more difficult for older teachers to hire assistants in a timely manner. KUAS can use its financial resources to employ a person through work contract, and currently employs one person (non-teaching staff), however, due to limited financial possibilities, the sustainability of such employment is uncertain.

KUAS always takes into account the legal termination of the employment relationship and the subsequent announcement of the tender procedure for filling a specific position. Annual plans for new employment, as well as promotion or re-election of teachers, are drawn up, so that all teachers have a valid choice of profession.

The entire process of attracting, applying selection methods, selecting and hiring, and developing and promoting KUAS's teaching staff is based on professional, objective and transparent procedures and criteria that promote excellence and are consistently applied.

Teacher recruitment procedures are regulated by laws in higher education (until October 2022, by the <u>Law on Scientific Activity and Higher Education (nn.hr)</u>, which prescribe employment criteria for individual positions, decisions or criteria for teaching positions (until October 1, 2024) according to <u>Decision on conditions for evaluation of teaching and professional activities in the procedure of selection for teaching positions from 1 October 2024 National selection</u>

<u>criteria</u> and the KUAS Statute. The KUAS Council makes decisions within the time limit set by the Law on the announcement of tenders for teaching or associate positions, the tenders are published in the National Gazette, in the daily press, on the official internet portal for jobs of the European Research Area-JOBS-EURAXESS-EUROPEAN COMMISSION and on the KUAS website (<u>Vacancies</u>). The application deadline is 30 days, and all candidates who submitted an application for the competition will be notified of the selection. KUAS prescribes additional criteria for certain positions, related to the achievement of goals (needs).

### The procedures of teacher recruitment are aligned with the higher education institution's development goals, relevant legislation and internal regulations.

Teacher recruitment procedures stem from the development goals of KUAS. Teachers are employed in accordance with the needs of existing and future study programs, i.e. in accordance with the Development Strategy for a certain period. Employment procedures are fully harmonized with positive legal regulations and internal acts, the Ordinance on the organization of work and the organization of workplaces (Statute and Rulebooks / Statute and other documents/VGUK) and with the consent of the competent ministry. Currently, a proposal for a new Ordinance on the organization of work and the organization of workplaces is in the process of being drafted.

In the Development Strategy from 2023 to 2028, strategic goal 4. Teaching and institutional capacities and within this goal special goal 4.1 was determined. To ensure the development of human resources, which is prescribed by Activity 1. To ensure the employment of teaching assistants no later than 5 years before retirement and to ensure the minimum number of own staff for starting new study programs. KUAS takes care, as much as it is possible in view of the above, that professional associates (assistants) or persons who meet the conditions for selection into teaching positions are employed in the workplace in order to continue the trend that is present at KUAS, and that is an extremely high proportion of own staff for the implementation of individual study programs. In a smaller part, the need for teaching staff is met by involving external associates in the teaching process (own financial resources). External associates are selected according to the same conditions (criteria) as KUAS employees.

## In the selection, appointment and evaluation of teachers, the higher education institution takes their past activities (teaching activity, research activity, student feedback, etc.) into consideration.

When selecting, appointing and evaluating teachers, their teaching, scientific and professional activities are taken into account, according to the valid legal criteria for associate and teaching positions (elections/re-elections) and valid prescribed conditions for election/re-election to teaching positions (described in the previous chapter) and additional criteria of KUAS. The basic criteria for selection and employment are defined in the Statute of the University, and the Council of KUAS can adopt additional criteria, primarily in the case when there is a need for a more specialized area within a scientific area and field, and the branch or conditions for certain teaching content are also determined during studies, which must be met for a specific

position. This is most often necessary in the field of agriculture, as the future employee needs to work in a much narrower, specialized field. An example of the conditions of the last announced vacancy can be given, for <u>teaching position of lecturer</u> where, in addition to the area and field, the branch is specified as a special condition, as an additional condition that is in accordance with <u>employment plan</u> that is, the needs for conducting teaching activities. Other examples can be found at <u>Vacancies/VGUK</u>.

For the selection of a professional associate/assistant, legal and related acts related to employment and election conditions exclusively state that assistants are selected from among particularly successful students. KUAS additionally requires a weighted grade average of at least 4.0 for the entire course, knowledge of a foreign language (minimum B2 level) and a positive evaluation of the introductory lecture. In accordance with the needs of KUAS, in addition to meeting the conditions of completed studies in the area and field, other conditions are also required, related to the position where the future employee should work, as explained in the selection for a teaching position. An example of a <u>vacancy for election of assistant</u> as well as another example of the election to the position of lecturer.

KUAS consistently adheres to the law and other related acts and the prescribed procedure in the procedure of employment for a position or selection for a position, as described in <u>Law on Higher Education and Scientific Activities (nn.hr).</u>

In the evaluation for selection into the teaching profession, the Scientific Field Committee (at the Agency for Science and Higher Education) which is responsible for the corresponding scientific field is included. Ultimately, the Council of the University confirms the choice. According to the current law, promotion to positions within the institution is no longer subject to a public tender, but the evaluation procedure is completely the same as when choosing a teaching position, that is, when hiring. Therefore, there is multiple supervision over the selection of applicants/candidates, where the applicant's previous activities (teaching activity, research activity, feedback from students, etc.) are taken into account and evaluated.

The higher education institution has appropriate methods of selection of the best candidates for each position and uses competitive, excellence-based recruitment criteria in addition to the minimum requirements prescribed by the national legislation.

As stated in the previous chapter, KUAS has appropriate methods for selecting assistants. The ZVOZD states that the candidate is selected from the ranks of particularly successful students, with which the Statute of KUAS is harmonized. KUAS additionally states the weighted average of five-year study grades of at least 4.0, knowledge of a foreign language (minimum B2 level) and candidates should have a positively graded introductory lecture that demonstrates their excellence (Form for assessment of introductory lecture). Among the candidates, the best is chosen. Candidates for teaching positions are selected primarily according to prescribed national criteria and the KUAS Statute, harmonized with the relevant law. When selecting the best candidates for each teacher's position, a positive opinion of the previously mentioned Expert Committee on meeting the conditions for selection and the competent Scientific Field Committee for the corresponding scientific field is mandatory. Additional criteria are determined by the KUAS Council, as described in the previous chapter.

The procedures for advancement of teachers to higher ranks are based on the evaluation and rewarding of excellence and important achievements (such as international contribution to the scientific discipline, high-impact publications, significant scientific discoveries, successful projects, success in securing additional funds, mentoring, supervision of final and graduation theses, authorship of textbooks and study materials, popular lectures, etc.) are considered.

Procedures and selection for the promotion of teachers to higher positions, as previously stated, are related to meeting the criteria prescribed by the ZVOZD and the National Criteria, and they include international contribution to the discipline, (prestigious) publications, (significant) scientific discoveries, successfully completed projects, mentorships, i.e. management of final and graduate theses, authorship of scripts or textbooks, popular lectures, etc.). KUAS recognizes and rewards excellence of the best teachers according to different criteria (teaching work, work on projects, scientific work, work that provides the institution with additional funds). Teachers who are selected for scientific positions, since this is not a requirement for a position at KUAS, are also rewarded, in case they demonstrate scientific excellence.

### Indicators of excellence include scientific/artistic, teaching and professional activities and contribution to the development of the higher education institution.

Indicators of excellence at KUAS include scientific, teaching and professional work and contribution to the development of the higher education institution. KUAS teachers demonstrate their excellence by publishing papers in national and international journals, participating in national and international professional or scientific meetings, registering, participating in or leading projects, publishing teaching materials, creating studies and expertise, etc. at the professional and/or scientific level. A record of each teacher's achievements is kept. The coordinator for science collects data on the scientific and professional work of teachers and reports to KUAS employees and students during the celebration of University Day, and the report is published on KUAS's website. The quality of the teaching work is also regularly monitored by surveying students about the teacher, and when rewarding the teacher, in addition to the students' evaluation, other aspects of the teaching process are also taken into account, which is described in detail in the aforementioned Rulebook.

#### Additional criteria for the promotion of teachers reflect the strategic goals of the higher education institution.

The excellence and advancement of teachers are certainly the strategic goals of KUAS, woven into all segments of the KUAS Strategy. KUAS did not adopt additional criteria for teacher promotion, apart from the above, given that the new National Selection Criteria (NN 36/2023 (29.3.2023.), National criteria for selection to a teaching position at a polytechnic - Zakon.hr), which will be valid from October 1, 2024, expressly encourage excellence in the work of

teachers. This does not mean that after some time the need for additional criteria will not arise, in which case KUAS will prescribe them.

#### 4.3. The higher education institution ensures support to teachers in their professional development

The higher education institution has a teacher development plan with defined performance indicators. It sets the priorities for teachers' professional development annually. The criteria for promotion and rewarding of excellence are clear, transparent and consistently applied.

KUAS regularly takes care of the advancement of its teachers and their fulfillment of the conditions for the timely implementation of procedures for re-election and election to the teaching profession so that all teachers have a valid choice of profession. The teacher development plan with defined performance indicators is related to the monitoring of teacher progress and the realization of the conditions for advancement, as well as other achievements. Teachers are regularly informed about various workshops, conferences, projects, etc.

The advancement of KUAS teachers is based on objective and transparent procedures. As previously explained, the procedures and criteria for the promotion of teachers to higher positions are aligned with positive legal regulations and internal acts related to promotions, so it can be stated that the promotion criteria are clear, transparent and consistently implemented.

The higher education institution has clearly defined the way it supports the teachers in their professional and career development. The higher education institution encourages the transfer of knowledge within the organisation.

KUAS supports teachers in their professional development in various ways. For example, it financially supports the further formal education of teachers, bears the costs of tuition fees for doctoral studies, and organizationally supports the scientific and professional advancement of teachers (use of laboratory spaces, practicums, devices and equipment, coordination with working hours, use of an official car, etc.). To a certain extent, teachers can conduct research that is not financed directly from professional or scientific projects, but is financed by KUAS funds.

Up to a certain amount, KUAS also financially supports the active participation of teachers, the first authors of scientific or professional work at scientific meetings in the country and abroad and/or the publication of papers in journals, if these activities are not financed from projects or from other sources. In addition, teachers have the option of using the Erasmus mobility program to improve their teaching and professional competencies.

KUAS encourages the transfer of knowledge within the organization by organizing workshops in which teachers who have acquired knowledge through workshops, seminars, etc. outside KUAS, transfer this knowledge to other KUAS teachers.

The higher education institution promotes and provides opportunities for the improvement of teaching competencies at the institutional level.

KUAS supports the improvement of teacher competencies by organizing lectures or workshops for its teachers to improve teacher competencies (student-centered teaching, workshops on learning outcomes, evaluation/evaluation of learning outcomes, etc.) or refers them to courses and workshops in other institutions (workshops in the system Dabar, Merlin, etc.). Several workshops were held at KUAS for the improvement of teachers' competences at the institutional level, we give an example of the last three, <a href="Peer observation in higher education">Peer observation in higher education</a> and <a href="Creating a study program: sets of learning outcomes, learning outcomes and competencies">Creating a study program: sets of learning outcomes, learning outcomes and competencies</a>, and <a href="Teaching process">Teaching process in higher education: methods of evaluating learning outcomes</a>.

#### The college provides and encourages the development of teachers' digital skills

KUAS continuously provides and encourages the development of digital skills of teachers by building their digital competences through confident and critical use of digital technologies for work and communication with students. Policy management and planning of the educational process at KUAS stems from the European Framework for the Digital Competence of Educators. It presupposes changes in the ways of learning, teaching and education. With their digital competences, KUAS teachers provide students with not only the basic necessary knowledge and skills prescribed by the curriculum, but also active participation in work and life in the digital age. Encouraging the development of digital skills is encouraged by various trainings organized at KUAS for all teachers, encouraging the use of digital technologies, as well as working with students using virtual tools and platforms. The workshops were held by teachers or an IT specialist who received training for the development of digital skills and transferred knowledge to colleagues (Turnitin software, work in a specific digital platform, etc.). The digital skills of teachers take place in the form of self-education or by participating in digital events (e.g. hackathon), webinars etc.

The higher education institution ensures and encourages the development of teaching skills. The higher education institution encourages improvements of teachers' competences based on gathered and analysed feedback on the effectiveness and efficiency of their work (teacher self-assessment, peer observation, student surveys, focus groups, etc.).

According to the prescribed activities from the <u>Quality Assurance Manual</u>, surveys are regularly conducted, results are processed, teachers and superiors from the management are informed and react to omissions, and improvements are encouraged. Feedback on the quality of teaching work is also collected through student surveys that are conducted every year (summary results are made public), peer evaluation of teachers (collaborative evaluation), self-evaluation, etc. (5. INTERNAL REPORTS / QUALITY ASSURANCE / VGUK).

KUAS brought <u>Rulebook on rewarding excellence in teaching, scientific and professional work</u>, which also encourages and then rewards the professional development of teachers.

#### The higher education institution encourages the participation of teachers in international mobility programmes, collaborative networks, etc.

KUAS encourages the participation of teachers in international mobility programs, collaborative networks and international projects. Teachers have the option of using the Erasmus mobility program to improve their teaching and professional competencies or for teaching purposes. Scholarships for teacher mobility are regularly fully used, except during Covid 19 when only one, virtual, mobility was implemented, which speaks of the great interest of teachers in these programs. In the last five observed years there were 62 teacher mobilities (Table 4.4 of the attachment). In addition, this type of international mobility, as well as other mobilities, was encouraged by the adoption of the new National University Criteria, which, regardless of the type of mobility (for the purpose of teaching or training), points mobility as one of the alternative conditions for selection/re-selection into teaching positions. The longstanding tradition of Erasmus mobility at KUAS, i.e. participation of teachers in mobilities, has led to the creation of collaborative networks in various areas, greater incoming mobility of teachers from foreign institutions, planning, reporting and implementation of international projects, writing and publishing joint works, participation in conferences and other forms of realized cooperation. In addition to Erasmus mobility, teachers participate in various international projects that also involve the exchange of experiences between project partners. In the SWOT analysis made for the purposes of creating a development strategy, the problem of the language barrier among a certain number of mostly older teachers was cited as a weakness, which somewhat limits the outgoing and incoming (accepting) mobility of students and teachers. Therefore, in the strategic objective VI. International cooperation is a specific goal. Creation of prerequisites for incoming mobility of students and (non)teaching staff, which is planned to be achieved primarily through activities. all prerequisites for teaching in English (performance plans and teaching materials). In this direction, support is and will be provided to teachers in various ways, such as financial assistance for learning a foreign language in foreign language schools, collegial support at the workplace, support of the foreign language teacher at KUAS and others. In addition, when hiring new assistants, one of the conditions is knowledge of a foreign language (English) at a minimum level of B2, which is checked during the recruitment process.

#### The higher education institution encourages and supports the participation of teachers in international and national competitive projects.

Teachers are encouraged to apply and participate in international and national projects and to increase scientific production. Teachers are regularly informed about announcements of tenders for projects of this type. KUAS provides the necessary administrative and technical support (professional service, coordinator for science, coordinator for international cooperation, from the beginning of 2024 also vice dean for business and development, collaborative support from colleagues with experience in applying and implementing projects, etc.), they are referred to workshops related to projects, all in order to make it easier for teachers to apply and to provide support in the implementation of projects.

#### 4.4. The premises, equipment and the complete infrastructure is suitable for teaching, scientific/artistic and professional activities

The higher education institution plans and improves the infrastructure development in line with the strategic goals.

Infrastructure development is one of the special goals of all previous strategies and continues in the KUAS Development Strategy for the period 2023 - 2028. Strategic goal 4. Special goal 4.2. Ensuring the development of the infrastructure implies four activities: 1. Ensuring a more appropriate space for the library; 2. Build and equip a wine practicum; 3. Continually invest in the arrangement of space and the acquisition of equipment necessary for the implementation of KUAS's activities.

Areas where teaching takes place (lectures, practicals, nursery/vineyard, stables, collection of fruit trees, garden...) are continuously being renovated, space for students' housing - student house and residence for students - is being renovated, laboratories and teachers' rooms are continuously being equipped and renovated. Offices, laboratory and computer equipment, machinery used in the practicum for professional practice and agricultural production, book collection, and other equipment necessary for carrying out KUAS's activities are being modernized.

#### The higher education institution ensures a minimum of 1 m2 of space per student.

From <u>table 1.c</u> of the presentation form, it is evident that KUAS provides 4.21 m2 per student, given that 353 students study at the University (based on a coefficient of 1.0 for students in full-time status, and a coefficient of 0 for students in part-time status, 5), and the total surface area for students (lecture rooms, laboratories/other spaces) is 1486 m2.

The higher education institution has available classrooms, laboratories, i.e. spaces where practical teaching is conducted, a library, an information technology (IT) classroom, offices for teaching staff and offices for employees in professional services.

KUAS has lecture halls, laboratories, i.e. spaces for conducting lectures, exercises and practical classes, a library (<u>Table 4.7.</u> Display form - library equipment), an IT classroom, teachers' offices and offices intended for the work of professional services. The premises are spacious enough for conducting quality classes, housing students, teachers and staff of professional services. All premises are owned by KUAS, the infrastructure for teaching, scientific/artistic and professional activities is shown in <u>Table 4.5.</u> display form.

Classrooms are equipped with seats for students, a lectern and the equipment necessary to present instructional content. Laboratories are equipped with adequate laboratory equipment necessary for research to be conducted for universities and for teaching practical classes. Offices of teaching staff and offices of employees in professional services are

#### equipped with office equipment necessary for the work of teaching staff and professional services.

All lecture halls are equipped with seats for students, a chair and equipment for presenting teaching materials. The IT classroom is modernly equipped and fully meets its purpose. KUAS has laboratories and practicums. The laboratories (Agrochemical, which includes the pedological and winemaking laboratories and the Laboratory for testing the quality of agricultural reproductive material) are equipped with appropriate laboratory equipment intended for carrying out exercises and practical classes, as well as various researches. The practicum for professional practice and agricultural production fully fulfills the purpose of carrying out exercises and practical classes. Within this practicum there is a practicum for animal husbandry where different types of animals are bred, a practicum for crop production and a practicum for agricultural mechanization. The workshop for plant production covers an area of 46 ha, where the production of mainly field crops takes place, but also the cultivation of vines and fruits, and to a lesser extent vegetables. Practicum for agricultural mechanization provides mechanization for the needs of agricultural production at KUAS. In addition to classes, exercises and professional practice, the Praktikum for professional practice and agricultural production conducts various researches, sets up demonstration experiments, etc., and students regularly participate in these activities. Practicums are continuously renovated and equipped with modern equipment, within the framework of financial possibilities, and efforts are made to follow modern trends in agricultural production. All practicums are in the immediate vicinity of the lecture halls, which enables better organization and efficient work with students.

#### The higher education institution has ensured that an adequate supply of computers is available to students, as well as wireless internet access in all rooms intended for students.

KUAS has one large IT lecture hall (equipped with 27 computers, a projector and a large interactive monitor) which is fully adequate for holding classes and, if necessary, online workshops and meetings. There are two seats next to each computer, which makes it possible to work in a larger group of students or to have a larger number of participants attend interactive meetings/workshops. In addition, there is a small IT workshop with 11 computers that students use according to their own needs, primarily outside of class. Computer use in a small classroom is available to them all day, from 7:00 a.m. to 8:00 p.m. In the small workshop, classes are sometimes held in small groups (5-7) of students who, in the presence of a teacher or without a teacher, work together on integrated project tasks and seminars, developing teamwork skills. One lecture room in the main building is equipped with 11 laptops that enable student teamwork and interactive teaching. In the basement of building B there is a student lounge. The dormitory is equipped with three computers that students use outside of class. In the A building of the Administration, there is a KUAS library, which includes a reading room with 4 computers for students. Wireless internet access is available to students in all the rooms they use, including in the Student House.

#### The higher education institution uses appropriate technologies that support all teaching and scientific needs.

All KUAS services related to teaching and scientific needs use appropriate business applications. The department uses the Information System of Higher Education Institutions (ISVU) to edit the database on students, enrollments, exams, teachers, courses, and certificates and certificates are issued to students through ISVU. All KUAS teachers use the ISVU system, and in the teacher's portal they have access to information about students, courses, entering grades and the like. Through ISVU, KUAS collects data and prepares, as necessary, various reports. The library uses Metelwin, accounting and bookkeeping CIRIS and LIBUSOFT. The STATISTICA program is used in teaching and for the purposes of statistical analysis in scientific research. In their daily work, everyone (both students and employees) uses programs from the MICROSOFT OFFICE365 package. KUAS teachers use the Turnitin anti-plagiarism program. In his work, the IT officer uses: GIMP, ABBYY FineReader, INKSCAPE and other programs. The website of KUAS (www.vguk.hr) is regularly updated with new content so that information is available to internal and external stakeholders in a timely manner. KUAS teachers use a username and password to access the site's services and regularly edit both personal and teaching-related data (notices for students, colloquium/exam results, etc.). The student office also regularly publishes information related to, for example, enrollment deadlines, colloquiums and exams, defenses of final theses, etc. Detailed information on study programs, implementation plans for courses, compulsory and additional literature, teaching materials in digital form are published on the website. (presentations, exercises, practice tasks, scripts and more. Due to the Covid-19 pandemic, KUAS successfully adapted to online classes (Microsoft Teams, Merlin, Zoom...). The necessary audio-video equipment to support elearning was acquired, which is also used for other purposes, such as conferences, various gatherings, etc. All courses of KUAS's study programs are e-forms on the Merlin system, and if the need arises, classes take place via the Merlin system or Microsoft Teams.

The space, equipment and the entire infrastructure (laboratories, IT services, work facilities, libraries, reading rooms, studios, galleries, multimedia halls, teachers' offices, warehouse, etc.) are appropriate for the delivery of study programmes, and they ensure the achievement of the intended learning outcomes.

The KUAS facilities form a meaningful complex where the KUAS buildings are surrounded by green areas, and in the immediate vicinity of the buildings where classes take place there are their own agricultural areas. This concept of buildings and agricultural land was designed at the time of the establishment of the Royal Agriculture and Forestry College (1860) and provides excellent conditions for conducting professional studies in which exercises and professional practice form a very significant part of the teaching, extremely important for achieving the expected learning outcomes. As described in detail in the previous chapters, and the library in the following chapters, the space, equipment and entire infrastructure (lecture rooms, practicals, laboratories, IT service, cabinets, etc.) are suitable for the implementation of study programs and ensure the achievement of the intended learning outcomes.

The space, equipment and the entire infrastructure (laboratories, IT services, work facilities, etc.) are appropriate for the implementation of scientific/artistic and professional activities.

The space, equipment and entire infrastructure (laboratories, IT service, practicals, etc.) are adequate for the realization of scientific and professional activities. In the past period, significant funds were invested in research equipment, i.e. in laboratories and workshops (practicums) of KUAS. Most of the equipment was acquired through scientific and professional projects and serves further scientific and research work. Agricultural areas are used mainly for setting up experiments (scientific, professional, demonstration), but also for the production of agricultural crops and fodder for domestic animals, which are located in animal husbandry laboratories where various researches are also carried out. Therefore, it can be concluded that the infrastructural conditions for scientific and professional activity are adequate.

4.5. The library and library equipment, including access to additional resources, ensure the availability of literature and other resources necessary for a high-quality of study and scientific-teaching/artistic-teaching activities

The library, its equipment and access to additional facilities ensure the availability of literature and library services for the purpose of conducting the study programmes and scientific/artistic and professional work (availability of teaching literature and literature for scientific/artistic and professional work, availability of ICT facilities, access to the library holdings in print and/or in electronic form).

The library materials are freely accessible, and business is carried out in the computer program Metelwin, which currently has over 8,300 catalog records of books, magazines, digital materials and evaluation papers. The library catalog is available, together with all important documents and information about the work of the library, useful links and forms for using library services (Request for searching materials, Request for interlibrary loan) on the website of the University (<a href="https://www.vguk.hr/hr/group/36/Knji%C5%BEnica">https://www.vguk.hr/hr/group/36/Knji%C5%BEnica</a>). The use of library services is also possible through the MetLib mobile application. The library has a total of 11 foreign magazine titles and 32 domestic magazine titles in printed form, and 449 magazines are available in electronic form with complete access through the HRČAK database and another 40 through NSK. At the teacher's suggestion, the book material needed for professional and scientific work is regularly acquired, and the digital material is available via the website Virtual KUAS.

The library and reading room are open for users 30 hours a week.

The library premises and resources, including additional resources, meet the conditions for a high-quality study in accordance with, among other things, the conditions stipulated by the Standard for Higher Education, University and Scientific Libraries (Official Gazette, 81/22).

The library is open access and adequately equipped with teaching content editions. Professional staff provides daily support to all its users. The reading room in a separate room has 4 computers that are available to students during the library's working hours. On its websites and on the Virtual KUAS website, the library offers students links to reference sources, the Portal of Electronic Resources (NSK), the Portal of Croatian Scientific and Professional Journals (HRČAK), the Repository of Final Papers, Google Scholar, thematically related publications issued in digital form and on digital tools and applications. Teaching materials published in electronic form are also available on the library's website. The library has the recommended number of copies of required literature for each course (in some cases more than 20%), information and referral services are available to students, and various types of educational programs are conducted for them.

#### The higher education institution ensured literature needed for teaching as well as research and professional activity.

The KUAS library develops its collections in accordance with study programs and the needs of users in scientific research and professional work. The library collection has 12,500 items, and is divided into the Collection of professional and examination literature, the Collection of books in a foreign language, the Reference Collection, the Collection of Assessment Papers, the Museum Collection and the Collection of Mihovil Gračanin. The library subscribes to 10 magazine titles, and the periodical collection includes 170 volumes of recent magazines and more than 160 titles of old magazines. All digital materials needed by students and teachers are available on the Virtual KUAS website. In the event that the library does not have a title needed by the users, it is acquired through interlibrary loan.

#### Students and teachers have access to ICT resources.

Computers are available to students in the reading room and IT workshop, and in case of greater need, computers in the IT classroom. All computers have access to the Internet and all basic computer programs. Users have access to all the necessary information, digital content and services, the distance learning system and the intranet through the University's website. The library also operates through a mobile application. All lecture halls and teachers' offices are equipped with computers, and most teachers also have laptops, which were mostly acquired through projects.

#### Students and teachers have access to library materials in print and/or electronic form.

The library materials are freely accessible, and information on the titles and status of the materials is available through the library's online catalog, along with all essential information about the library's work and useful links for students and teachers (https://www.vguk.hr/hr/group/36/Knji%C5%BEnica).

Electronic materials are available on the site Virtual KUAS.

#### The library and library equipment, including the additional resources, meet the conditions for a high-quality study.

The library of KUAS continuously monitors the lists of examination literature, the offer of newly published books, the offer of antiquarian shops and user inquiries, and in cooperation with teachers acquires all materials relevant to the development of quality collections. Gradually, in accordance with the needs and procurement plan, the number of copies of printed material that is mandatory and additional examination literature is increasing. It also periodically supplements the catalog with links to open access digital editions. With its materials and services, the library successfully responds to all user inquiries, but also trains them to independently search for the necessary materials.

### The library and library equipment, including the additional resources, ensure a high quality of scientific-teaching / artistic-teaching activities.

The KUAS library plays the role of a partner in the educational, professional, scientific and publishing activities of KUAS. It develops its collections in accordance with study programs and the needs of users in scientific research and professional work in order to support the development of society based on knowledge and open access to scientific information. The library staff develops their professional and personal competences in order to provide users with the best possible user experience (CSSU, Croatian Library Association, Carnet).

The library closely cooperates with the Registry Office at NSK, related institutions and numerous publishers so that, based on the exchange of information, knowledge and experience, it could be the best possible support for its users in their professional and scientific work. Accordingly, the Work and Development Program of the KUAS Library for the period 2021 - 2026, published on the KUAS website, states the development of services aimed at enabling the highest quality professional and scientific work for its users: subject processing of professional materials, analytical processing serial publications, provision of bibliometric services to University teachers, development and implementation of a program for systematic user education on the use of library information services, and implementation of workshops on scientific research work.

### 4.6. The higher education institution provides the necessary financial resources to conduct teaching, scientific and professional activities

The higher education institution has prepared a financial plan which includes the planned income and expenses to conduct higher education activity and professional activity over a three-year period (the financial plan of a university or a faculty, or an arts academy or a University/university of applied sciences should comprise the planned income and expenses to conduct research activity, or artistic and professional activity).

The financial plan of every public higher education institution should be harmonized with the LHESA, which regulates the budget system, and the by-laws adopted on the basis of it, the

statute and the program contract. It should contain a plan for the budget year and projections for the next two budget years, and be adopted for each calendar year. The plan should contain planned income and expenses for the performance of higher education and professional activities. KUAS acts fully in accordance with the aforementioned and publicly publishes financial plans, as well as other financial reports, on its website (Financial reports / Statute and other documents / VGUK)

The public higher education institution has provided evidence of sufficient funds to deliver the study programme, in the form of a signed programme agreement or a projection of income from tuition fees or other sources.

KUAS has the funds necessary to carry out the studies, which is evident from the financial reports and final accounts, which are prepared in KUAS's accounting department, are adopted by the KUAS Administrative Council, and from the internal audit reports that are publicly available on the KUAS website (Financial reports / Statute and other documents / VGUK; Statute and other documents / VGUK). Funds for the entire operation come from the following sources: budget source (employee salaries and material operating costs; program contract) and own and earmarked funds. As a rule, expenses never exceed income, except in cases where, due to the dynamics of income and expenses from international projects pre-financed by the University in the previous period, the funds are paid in the following year, therefore it sometimes happens that in the observed year, expenses exceed income. Despite this, the University regularly operates positively, considering that unspent funds from the previous year are transferred to the new financial year. These unspent funds from the previous period, although very limited, make it possible to pre-finance certain projects, etc., or to invest in the development of activities. In the current circumstances, the state of KUAS's finances is positive, stable and sustainable.

### Financial sustainability and efficiency are evident in all aspects of the higher education institution's activity.

From the Financial Evaluation table for the last two calendar years, which represents income and receipts, costs and expenditures for the two-year period, the sources of financing and the structure of expenditures can be seen (Table 4.8). Financial sustainability can be shown with income descriptions and the share of own and earmarked income within total income. It can be said that in the observed period there was a slight increase in revenues from the state budget, but the share of own and earmarked revenues also increased significantly (Table 4.8). At the same time, there is a decrease in income from school fees of all levels and types of studies, due to the lower number of enrolled students. As for the income from the projects, it is directly related to the number of projects and their value, and mostly to the time of payment for the projects. Since KUAS has its own land on which it produces agricultural products, fruit and grapes, it generates income from part of the products, and incentives for the use of agricultural land are also received. Demonstration experiments for seed companies are set up on these areas, experiments in the field of plant protection and fertilization experiments for fertilizer producers

are carried out. Part of the income comes from renting space (Student house, boarding houses for horses, etc.), part from the local community, etc. A significant part of the income comes from the service activities of the Agrochemical Laboratory and the Laboratory for Testing the Quality of Agricultural Reproduction Material, and the income depends on the number of performed analysis. If you look at the share of own income in total income, it is evident that it ranges from 28.31% to 35.78%.

Planned revenues are used for infrastructural development of the institution and development of quality through professional and scientific training of teaching and administrative staff, procurement of computer, laboratory and other equipment, literature, books for the library, investments and investment maintenance, intellectual services and other program implementation costs.

### The higher education institution manages its financial resources transparently, efficiently and appropriately.

KUAS transparently, efficiently and expediently manages financial resources, as described in standard I.

#### Additional funding sources are used for institutional development and improvement.

Additional sources of financing are important for the sustainability of KUAS's financing, especially considering that the budget revenues for material costs do not even close to cover the total material costs of KUAS. Additional sources of funding at KUAS are: earmarked (tuition fees for students and other fees for participants of educational programs, funds from European structural and investment funds and other funds and programs of the European Union, income from scientific and professional projects, income from funds, donations and other appropriate sources of funding for educational and scientific activities) and own (incomes generated by performing activities on the market and under market conditions). Additional sources of financing are used for the development and improvement of KUAS, as much as the amount of these funds allows financial investments, because these are the only sources for improvement, since the funds from the budget source are sufficient for the salaries of employees and part of the material costs of KUAS.

### Additional funding sources are secured through national and international projects, cooperation with the economy, local community, etc.

As previously stated, part of the additional sources of financing were secured through domestic and international projects, cooperation with the economy, the local community, etc., which can be seen from <u>table 4.8</u>. analytic supplement.

#### V. RESEARCH/ ARTISTIC AND PROFESSIONAL ACTIVITY

# 5.1. The higher education institution is recognisable by scientific research and/or artistic achievements in all the scientific fields in which it conducts studies

The scientific work of the higher education institution is grounded in original ideas and an original scientific approach.

Scientific work at KUAS is based on the <u>Strategic program</u> of Scientific Research of the Križevci College of Agriculture for the period from 2019 to 2024

Based on this program, in the period from 2019 to 2023, seven research projects have been implemented or are still in the process of implementation. These are:

- 1. "Taxonomy, Ecology and Utilization of Carob Tree (*Ceratonia siliqua* L.) and Bay Laurel (*Laurus nobilis* L.) in Croatia". Acronym: TEUCLIC. The project is funded by the Croatian Science Foundation. On 24/05/2019, the project was awarded the highest final grade; A Excellent progress; The project fully met the objectives for the given period or exceeded expectations. KUAS was a contracting institution, and the project manager was dr. sc. Siniša Srečec. 29 researchers participated in the project. In addition to the researchers of the parent institution, associates from four other scientific institutions in the Republic of Croatia were engaged; Faculty of Agriculture, University of Zagreb, Faculty of Pharmacy and Biochemistry, University of Zagreb, Faculty of Science, University of Split.
- 2. "Evaluation of Conservation Tillage as an Advanced Method of Crop Cultivation and Prevention of Soil Degradation". Acronym: ACTIVEsoil. The project is funded by the Croatian Science Foundation. The project leader is prof. dr. sc. Danijel Jug from the Faculty of Agrobiotechnical Engineering of the Josip Juraj Strossmayer University in Osijek, and KUAS is a collaborating institution from which three associates were engaged in the project. The project started on December 22, 2020 and will be implemented until December 21, 2024.
- 3. "Croatian species of the genus *Veronica*: phytotaxonomy and biological activity" Acronym: CROVeS-PhyBA. The project is funded by the Croatian Science Foundation. The project manager is prof. dr. sc. Valerija Dunkić from the Department of Botany, Faculty of Science, University of Split. Ten scientists were engaged in the project, of which seven are scientists from the Faculty of Science, University of Split, one associate from the Faculty of Pharmacy and Biochemistry, University of Zagreb, one associate from the Faculty of Medicine, University of Rijeka, and one associate from KUAS. The project started on January 11, 2021 and will last until January 10, 2025.
- 4. "Possibilities of Using Digestate from a Biogas Plant as a Fertilizer and Soil Improver". The project was approved from the components of Measure 16, Sub-measure 16.1. "Support for the establishment and operation of the European Innovation Partnership (EIP) Operational Groups for Productivity and Sustainability" implementation of operation type 16.1.2. Task forces. The project started on January 19, 2021 and lasted until December 30, 2023. The

realization of the project is financed by the European Agricultural Fund for Rural Development. The contractual institution is KUAS, and the project manager is dr. sc. Ivka Kvaternjak. A total of seven researchers from KUAS were engaged in the project. Associates in the implementation of the project are six family farms and two local self-government units, the municipalities of Sv. Petar Orehovec and Gradec.

- 5. "Adaptation of viticulture and wine production to climate change". The project was approved from the components of Measure 16, Sub-measure 16.1. "Support for the establishment and operation of the European Innovation Partnership (EIP) Operational Groups for Productivity and Sustainability" implementation of operation type 16.1.2. Task forces. The project manager is Ivan Prša, dipl. Ing. agr. from the Croatian Agency for Agriculture and Food, head of the Center for Viticulture and Winemaking. One associate was hired from KUAS. The project started on 01.11.2020. and lasted until 30.06.2023.
- 6. Since 2014, the University of Applied Sciences has been continuously participating in the "National Program for the Conservation and Sustainable Use of Plant Genetic Resources for Food and Agriculture in the Republic of Croatia" (NBBG) KUAS is a member of the research consortium of 11 Croatian institutions, and three associates from KUAS have been engaged in the project, and it is in charge of the Active Collection of Seeds of Old Vegetable Varieties. Participation in this program is a condition for participation in programs funded by the European Union, and since 2018, KUAS has been implementing additional activities complementary to the activities within the NBBG, which are financed through measure 10.2. "Support for the conservation, sustainable use and development of genetic resources in agriculture" of the European Agricultural Fund for Rural Development. From 2024, these activities are carried out within the intervention 70.05. Support for the conservation, sustainable use and development of genetic resources in agriculture from the Strategic Plan of the Common Agricultural Policy of the Republic of Croatia 2023 2027 and are also co-financed by the European Agricultural Fund for Rural Development.
- 7. "The effect of treating cereal seeds with biostimulants, polymers and combinations of preparations". This project is an example of cooperation with the economy, specifically with the foreign and global company SNF, which is a global producer of biopolymers. The project started in 2019 and lasts until 2024.
- 8. "Smart Organic Food Initiative". Acronym: SOFI. The project holder is the Križevci College of Agriculture, and the partners in the project are the Association for the Economy of Community from Križevci, the Center for Lifelong Learning from Travnik (Bosnia and Herzegovina), the Starckmacher Association from Mannheim (Germany). The project is supported by the cities of Križevci and Travnik and the Technical College within the Rhein-Waal University of Applied Sciences (Kleve, Germany). The project is implemented within the framework of the European Climate Initiative (EUKI), which finances climate protection projects throughout the European Union on behalf of the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU) from Germany. The implementation of the project began in 2022 and ends in 2025.

On the basis of the above, it can be concluded that the scientific work at KUAS, as the legal successor of Križevci College of Agriculture, is based on original ideas and on an original scientific approach.

#### The number and quality of the higher education teachers' published papers is at the highest level.

Research work on these projects has led to a significant increase in the number and quality of papers compared to the previous period. Namely, the papers in the period from 2019 to 2023<sup>1</sup> were mostly published in journals at the highest world level, in accordance with the scientometric indicators of the international scientific journals in which the papers were published. Namely, <u>Table 5.1</u> shows that the largest number of published papers in the period from 2019 to 2023, out of a total of 53 published scientific papers, 39 of them were indexed on the Web of Science Core Collection reference citation database, including papers indexed on the Emerging Sources Citation Index (ESCI), which also appear when the author's search of the Web of Science Core Collection citation database. On the other hand, only 14 published papers in the same period were indexed in other reference citation databases such as Scopus, CAB Abstracts and Google Scholar. Compared to the situation in the previous re-accreditation, a significant improvement in the quality of scientific research work has definitely been achieved, because according to the Self-Analysis Report for Chapter V for the period from 2014 to 2017, 39 scientific papers were published in journals indexed in the Web of Science Core Collection referral citation database. Therefore, it can be concluded that a significant improvement has been achieved if we consider the number of scientific papers published in journals indexed in the strictest referral citation database (WoSCC). In doing so, it is necessary to consider the relatively small number of active researchers employed at KUAS, of which there are only 25.

In addition to the number and quality of scientific papers, it should be noted that in this reaccreditation period, two scientific monographs were published by renowned academic institutions, the Croatian Academy of Sciences and Arts and the Hungarian University of Agriculture MATE.

- 1. Srečec, S., Kremer, D. i sur. (2020) <u>Taksonomija</u>, ekologija i uporaba rogača (*Ceratonia siliqua* L.) i lovora (*Laurus nobilis* L.) u Hrvatskoj. Hrvatska akademija znanosti i umjetnosti. Zagreb.
- 2. Srečec, S., Csonka A., i sur. (2022) <u>Management</u> of agri-food chains. MATE Press. Gödöllő, Hungary.

The employees of the Križevci University of Applied Sciences are the editors and authors of individual chapters of these monographs.

<sup>&</sup>lt;sup>1</sup> all data were collected by searching the CRORIS/CROSBI database for each teacher and external associate, for the purpose of creating Table 4.3 and comparing the data listed in the CRORIS/CROSBI database with bibliographic and scientometric data for each author on the Web of Science Core Collection and Scopus reference citation databases.

Also, a scientific monograph reviewed by a teacher from the Polytechnic in Križevci was published: <u>Program razvoja</u> for sustainable rural tourism in Moslavina [Electronic source] / editors Barbara Pavlakovič, Marko Jurakić, Marko Koščak. - 1. izd. = 1st ed. - Maribor : Univerzitetna založba Univerze, 2020.

### Results of research conducted by the teachers significantly contribute to the development of the scientific and/or artistic field in which they are active.

If we take into account the relatively high citation rate of papers published in the period from 2019 to 2023, as stated in <u>Table 5.2</u>, and if we take into account that these 20 papers were published in journals from the first, second and third quartiles according to their citations in the Web of Science Core Collection, it can be concluded that the results of teachers' research significantly contribute to the development of the scientific field in which they operate.

#### The higher education institution has a satisfactory number of scientific papers in prestigious primary scientific outlets in its area/field.

Based on the comparison of Tables <u>5.1</u>, <u>5.2</u> and <u>5.3</u>, it is clear that KUAS has a satisfactory number of scientific papers in prestigious primary modes of scientific communication in its field, since out of a total of 53 published papers, 31 of them are published in open access journals, indexed on the Web of Science Core Collection referral citation database and which have high impact factors in the field they cover.

#### There is a satisfactory number of papers of the higher education institution presented at prestigious conferences.

In the period from 2019 to 2023, KUAS employees published a total of 53 papers in the proceedings of scientific conferences, of which 24 papers are open access. Out of 53 papers published in the proceedings of scientific conferences, 18 of them came from cooperation with domestic scientific institutions, and 2 papers came from international cooperation. However, it is difficult to assess *the prestige of* scientific conferences in the field of agriculture. In the period from 2019 to 2023, KUAS employees published 17 papers in the proceedings of exclusively international scientific conferences. Of this number, in the proceedings of the world's most prestigious scientific conferences, three papers can be safely singled out that have been published in; Geophysical Research Abstracts, Vol. 21, EGU General Assembly 2019. Vienna: European Geosciences Union (EGU), 2019, EGU2019-6941-1, 1. Then, Proceedings of the 10th Central European Congress on Food. CE-Food 2020. Springer, Cham. and finally, Proceedings of the Scientific-Technical Commission of the International Hop Growers' Convention I.H.G.C. ISSN 2512-3785.

Therefore, it can be assessed that in the period from 2019 to 2023, KUAS has a satisfactory number of papers presented at exclusively prestigious scientific conferences.

#### The higher education institution is involved in a satisfactory number of competitive projects.

<u>Table 5.6</u> shows that in the period from 2019 to 2023, KUAS was included in a total of 21 competitive projects. Of the total number of competitive projects, eight of them fall into the category of scientific research projects, and 13 belong to the category of competitive professional projects. To this number should be added two successful applications of competitive projects in 2020, these are:

- 1. Project: Game-changing and real benefits for environment, animals and society by concrete innovations related to pig, poultry and aquaculture food system. Project acronym: greenanimals. The project was submitted under the call: H2020-LC-GD-2020-4. Project application number: 101037707. Activity: LC-GD-6-1-2020. Križevci College of Agriculture was a member of a project consortium of 23 institutions from European countries. The project passed the threshold because it achieved 11 points, and the threshold for passing the project was 10 points. However, no positive financing decision was taken.
- 2. Project: Collaborative Interactive LeArning for SuStainablE Development. Project acronym: CLASSED. The project was submitted under the call: H2020-LC-GD-2020-3. Project application number: 101037098. Activity: LC-GD-10-3-2020. Križevci College of Agriculture was a member of a project consortium of 13 institutions from European countries. The project passed the threshold and although at the end of the evaluation process it achieved, for many proposers of project proposals, an enviable 14.50 out of a maximum of 15 points, no positive decision was made on its financing.

From the above, it can be concluded that the activity of KUAS employees in the application, and of course in the implementation of research projects, was great.

If we consider the relatively small number of employees of the KUAS and the small number of researchers, it can be concluded that the KUAS was involved in a satisfactory number of competitive research projects in the period from 2019 to 2023.

#### The higher education institution organizes scientific conferences that are recognized at the national and international level.

In the period from 2019 to 2024, KUAS was a co-organizer of a total of 21 national and international scientific conferences.

KUAS, as the legal successor of the Križevci College of Agriculture, was a co-organizer of the following scientific conferences that are recognizable at the national and international level;

- 1. 54. Croatian and 14. International Symposium of Agronomists 2019.,
- 2. 55. Croatian and 15. <u>International Symposium</u> of Agronomists 2020.,
- 3. 56. Croatian and 16. <u>International Symposium</u> of Agronomists in 2021.,
- 4. 57. Hrvatske and 17. International Symposium of Agronomists 2022.,
- 5. S8. Croatian and 18. <u>International Symposium</u> of Agronomists in 2023.,
- 6. 59. Croatian and 19. <u>International Symposium</u> of Agronomists in 2024.,

- 7. I. <u>International Scientific and Professional Conference</u> "Innovations: Guaranteeing the Future of Agribusiness in Croatia in 2019.,
- 8. II <u>International Scientific and Professional Conference</u> Innovations: Guaranteeing the Future of Agribusiness in Croatia, 2020.,
- 9. III <u>International Scientific and Professional Conference</u> "Innovations: Guaranteeing the Future of Agribusiness in Croatia" in 2021.,
- 10. IV. <u>International Scientific and Professional Conference</u> "INNOVATIONS IN AGRIBUSINESS: climate change and sustainable bioeconomy" in 2022.,
- 11. V. <u>International Scientific and Professional Conference</u> "INNOVATION AND AGRIBUSINESS: Challenges until 2030" in 2023.,
- 12. VI <u>International Scientific and Professional Conference</u> "INNOVATION AND AGRIBUSINESS: Transfer of Knowledge and Technology" in 2024.,
- 13. 12th <u>International Congress of Plant Breeding</u>, Seed and Nursery, 2019.,
- 14. 13th <u>International Congress on Plant Breeding</u>, Seed and Nursery, 2020.,
- 15. 14th <u>International Congress on Plant Breeding</u>, Seed and Nursery and 8th Regional Seed Days, 2021 <u>zbornik-Zadar-2021.pdf</u> (agronomsko.hr)
- 16. 15th International Congress on Plant Breeding, Seed Production and Nursery, 2022.,
- 17. 16th International Congress on Plant Breeding, Seed and Nursery, 2023.
- 18. 1. International expert-scientific conference for the development of rural tourism "Sustainable and responsible development in rural tourism". in 2020 <u>Proceedings- Vimal (vimalakademija.hr)</u>
- 19. 2. International expert-scientific conference for the development of rural tourism "Sustainable and responsible development in rural area". in 2020 <u>Proceedings</u>— <u>Vimal</u> (vimalakademija.hr)
- 20. 3. International expert-scientific conference for the development of rural tourism "Education as a key factor of sustainable and responsible development of the rural area". in 2022 Proceedings Vimal (vimalakademija.hr)
- 21. 4th International professional-scientific conference for the development of rural tourism: "Holistic approach to the development of the Management and Tourism program" 2023 Proceedings Vimal (vimalakademija.hr)

Also, <u>Table 5.7</u> shows the number of KUAS teachers, members of the organizing committees of conferences in the past in the period from 2019 to 2023.

### The higher education institution teachers participate in the work of committees and other bodies in higher education and science.

- National Council for Science, Higher Education and Technological Development from 2017 to 2017 2021 (Constituent Session of the NVZVOTR) one teacher
- Scientific Field Committee for Biotechnical Sciences of the Association of Polytechnics, successor of the Council of Polytechnics of the Republic of Croatia) until 2024 member, president 1 teacher

- Committee for the Coordination of Scientific Field Committees member, president 1 teacher
- <u>Scientific field committee</u> for Biotechnical Sciences of the University of Applied Sciences Association, from 2024 1 teacher
- Academy of Agricultural Sciences Secretary General 1 teacher
- <u>Scientific Council</u> for Nature and Environmental Protection of the Croatian Academy of Sciences and Arts two teachers (members 69 and 72)
- Working Group for the Drafting of the National Plan for the Development of the Education System for the Period until 2027 and the Draft Action Plan for the Implementation of the National Plan for the Development of the Education System for the Period from 2021 to 2023 age. 1 teacher

External collaborators are recognized as experts in their fields, they have published adequate scientific or professional papers, and have the appropriate work experience.

<u>Table 4.3</u> shows that external associates are recognized experts in their field and have appropriate scientific and professional papers, as well as relevant work experience. The data for each external associate is verifiable via a link to their CRORIS and CROSBI profiles.

The higher education institution teachers participate in the editorial boards of scientific journals.

In the period from 2019 to 2023, KUAS teachers actively participated in the work of the editorial boards of 12 national and international scientific journals, as shown in <u>Table 5.8</u>. Most of these journals have a high impact factor and are ranked mainly in the top quartile according to the Web of Science Journal Citation Reports. The two journals in which the teachers of the University of Applied Sciences are members of the Editorial Boards are not indexed in the Web of Science Core Collection, i.e. Scopus citation reference databases, but only in EBSCO, CABi and Google Scholar citation databases.

The higher education institution has an organised publishing activity and it is the publisher of scientific publications that are nationally and internationally significant and recognisable.

The international recognition of the published publications has certainly been achieved by the publication of editions created as a result of the implemented projects in the Interreg V-A Cross-border Cooperation Programme Hungary-Croatia 2014-2020.

# 5.2. The higher education institution is distinguished by its professional achievements in all fields in which the professional study programme is delivered

#### The quality of the published professional publications of higher education institution's teachers is at the highest level.

When it comes to the quality of published professional papers of teachers, it is not possible to objectively assess their actual level. Namely, it is known that the actual level of quality of published papers can be assessed on the basis of scientometric indicators, i.e. their citations, and only if the papers are published in journals indexed in the Web of Science Core Collection and Scopus referral citation databases. Unfortunately, these journals in fields that are complementary to the field of biotechnical sciences, such as life sciences, agriculture, food science, environmental sciences, veterinary, animal welfare, etc., have been dividing papers into only two categories for many years, i.e. in research papers and reviews.

All professional papers that have been published mainly in Croatian scientific and professional journals or in proceedings of scientific and professional conferences, have undergone the review procedure and have been published only after the decision of the Editorial Boards of the journal or proceedings on the acceptance of the manuscript for publication after all the comments of the reviewers have been fulfilled by the author.

### The results of teachers' professional research contribute significantly to the development of the profession.

It can be stated that all the results of professional research of teachers greatly contribute to the development of the profession. First of all, the contribution of the KUAS teachers in the revitalization of the autochthonous grape variety Kleščec and its branding must be emphasized, as well as expert research on monitoring the productivity of the autochthonous Križevci crested hen, which were saved from extinction exclusively through research professional work and the commitment of KUAS teachers. It should be noted that the project of revitalization of the autochthonous grape variety was completed in 2017. However, from 2020 to 2022, the project "Cross-border wine routes 2" was implemented as part of the cross-border cooperation project between Croatia and Hungary. One of the goals of this project was the branding of the autochthonous and now revitalized variety Kleščec. The recognizability of the results of the work on these projects is also evidenced by the awarding of a special recognition for the preservation of indigenous varieties in 2022.

To this it is certainly necessary to add nine non-competitive professional research projects. These are:

- 1. Prudential valuation of land in the city of Vrbovsko Vujnovići.
- 2. Prudential valuation of land in the city of Vrbovsko Moravice.
- 3. Prudential valuation of land in the municipality of Lukovdol Štefanci.
- 4. Prudential valuation of land in the cadastral municipality of Polača.
- 5. Prudential valuation of land in the municipality of Tisno
- 6. Pedological part of the preliminary design of the irrigation system of the Čađavica facility Phase I.
- 7. The effect of treating cereal seeds with biostimulants, polymer and combinations of preparations. This project is an example of cooperation with the economy, specifically with the

foreign and global company SNF, which is a global producer of biopolymers. Duration: 2019 - 2024

- 8. Preservation and revitalization of traditional fruit species and varieties in Zagreb and Koprivnica-Križevci County, project financed by Koprivnica-Križevci County and Zagreb County. Duration: 08/07/2020 to 08/07/2023
- 9. Monitoring the productivity of the Križevci crested hen. Duration: 2018-2022, CCC funding
- 10. Pop-up Rural Hub, Development of local rural communities through the initiation of socially innovative sustainable micro-entrepreneurial activities using local resources with the aim of starting the local economy and stopping migration from rural to urban areas. The project was financed from the European Social Fund. Duration: March 19, 2018 March 18, 2020.

Of these ten non-competitive professional research projects that were carried out in the period from 2019 to 2023, six projects are professional projects that have been implemented or are being implemented for the purpose of preparing a study for the evaluation and future use of agricultural land. The clients of these projects are mostly local self-government units. Therefore, these projects are not listed in <u>Table 5.6.</u>

However, expert research is also carried out in cooperation with a large number of companies/economic entities engaged in seed production, production and/or distribution of conventional and ecological fertilizers, production and/or distribution of protective agents in agriculture. Such research projects also include the last three projects above the order. br. 7 to 9, which aims to transfer technology and knowledge into good agricultural practice. These three projects are listed as non-competitive projects in <u>Table 5.6.</u>

The results of these professional research projects are directly implemented in the profession and students are involved in them, thus directly and indirectly contributing to the development of the profession, papers are published that disseminate the results of the research, etc. The results of the teachers' professional research significantly contribute to the development of new teaching methods that are implemented in the teaching process at KUAS. An example of this is the Pop-up Rural Hub project, through which an <u>educational manual</u> was written and the concept of service-learning was implemented at the KUAS.

### The higher education institution has a satisfactory number of professional publications in prestigious professional journals.

Based on everything presented under the previous criterion/indicator, it is not objectively possible to determine *the prestige of* professional journals in which the professional papers of KUAS teachers are published. For this reason, <u>Table 5.1</u> shows a large disproportion in the number of total published professional papers in relation to scientific papers in the period from 2019 to 2023, i.e. 9 professional: 53 scientific papers. This disproportion is largely contributed by the criteria for promotion to teaching titles.

There is a satisfactory number of papers of the higher education institution presented at prestigious professional conferences and symposia.

This indicator can be linked to the previous indicator. Namely, in the proceedings published at scientific, national and international professional conferences, both scientific and professional papers are published.

### The higher education institution is involved in a satisfactory number of professional projects.

Respecting the previously mentioned nine non-competitive research projects, KUAS is involved in a satisfactory number of professional projects. Namely, from Table 5.6. It is evident that out of the total number of 22 competitive projects, 8 of them fall into the category of scientific research projects, and 14 belong to the category of competitive professional projects. However, project outcomes are not the same for all professional projects. Hence the disproportion in the number of professional and scientific papers. In particular, the results of some research professional projects are often so valuable that they are published as scientific papers in prestigious scientific journals or scientific conferences. Some professional projects are intended for the development of staff competencies through international exchange, specifically the Erasmus program. On the other hand, the outcomes of nine non-competitive research projects were exclusively the preparation of a study for the needs of the research client, and for the publication of the results of one non-competitive research project, the researchers had to seek the consent of the client. In addition, the outcomes of some professional projects are the transfer of knowledge and technology in the profession. An example of this is the participation of KUAS teachers in the NEFERTITI project from the HORIZON 2020 constituents. Finally, the outcomes of some professional projects are professional books, scripts, manuals and textbooks intended for target groups of project users and stakeholders (https://doi.org/10.54597/mate.0058), as well as strategic documents, i.e. action plans and programs for lifelong learning (e.g. within the SOFI project, the most important output of the project is the development of the "Climate Action Plan for Agriculture for the City of Križevci", and the implementation of the lifelong learning program: Green Education Program for Students and Farmers.

#### The higher education institution organizes professional conferences that are recognized at the national and international level.

All national and international conferences listed in the previous subchapter and in <u>Table 5.7</u> are categorized as scientific and professional conferences. Therefore, this criterion can be combined with an identical criterion in the previous subchapter/indicator.

However, it should be emphasized that the Križevci University of Applied Sciences is the organizer of the International Eco Festival called "What kind of farms are we leaving to the next generations of farmers?", in 2023, which was organized as an activity within the already mentioned SOFI.

The higher education institution teachers participate in editorial boards of professional and popular journals.

Five teachers of KUAS are on the editorial board or editorial board of professional or scientific journals:

- 1. <u>Hop Bulletin</u>, Institute of Hop Growing and Brewing of Slovenia,
- 2. <u>Agroeconomia Croatica</u>, Hrvatsko agroekonomsko društvo,
- 3. Agronomski glasnik, Croatian Agronomic Society,
- 4. <u>Seed Production</u>, Croatian Agronomic Society,
- 5. Dairy List, Croatian Dairy Association.

In addition to the above, teachers also participate in the editing of proceedings from national and international conferences.

### The higher education institution has an organised publishing activity and it is the publisher of professional publications relevant to the development of the profession.

As stated in the previous subchapter, in the period from 2019 to 2023, KUAS published, independently or as a co-publisher, a total of 14 professional publications, as follows:

- 1. Kušec, Vlado (2019): Machines and Tools for Soil Cultivation and Tillage. ISBN 978-953-6205-35-6, printed edition.
- 2. Špoljar, Andrija (2019): Soil conservation and remediation. ISBN 978-953-6205-36-3, print edition.
- 3. Tušek, Tatjana; Alagić, Damir; Nervo, Vedran (2020): <u>Glossary of Veterinary Medicine</u>. ISBN 978-953-6205-38-7, electronic edition.
- 4. Ciglar, Darko, et. al. (2021): <u>Handbook for Rural Development</u> Using Mobile Rural Hubs. ISBN 978-953-6205-39-4, electronic edition.
- 5. Srečec, Siniša and Erhatić, Renata (2021): <u>Agricultural Botany-Systematics of Higher Plants</u>: A Textbook for 1st Year Students. ISBN 978-953-6205-40-0, electronic edition,
- 6. Dadaček, Nada (2021): Agroclimatology, 2nd edition. ISBN 978-953-6205-42-4, print edition.
- 7. Stojnović, Miomir (2021): <u>Fundamentals of Agricultural Engineering</u>: Practicum. ISBN 978-953-6205-43-1, electronic edition.
- 8. Kalember, Đurica (2021): <u>Spawning methods of carp in fish farming</u>. ISBN 978-953-6205-44-8, electronic edition.
- 9. Alagić, Damir (2022): Horse breeding, health and welfare. ISBN 978-953-6205-45-5, print edition.
- 10. Šklec, Krunoslav (2022): <u>Project Management</u>. ISBN 978-953-6205-46-2, electronic edition.
- 11. Srečec, Siniša et. al. (2022): <u>Management of agri-food chains</u>. ISBN 978-963-623-023-4, electronic edition in collaboration with MATE University Hungary.
- 12. Vrbančić Igrić, Marijana (2023): Horses and Equestrian Sport. ISBN 978-953-6205-48-6, print edition.

- 13. Tušek, Tatjana (2023): <u>Anatomy and physiology of domestic animals</u>. ISBN 978-953-6205-50-9, electronic edition.
- 14. Kušec, Vlado (2024): Mechanization in Farming. ISBN 978-953-6205-49-3, print edition.

### The higher education institution teachers participate in the work of committees and other bodies relevant to development of the profession.

Everything presented in the criterion of the same name in the previous subchapter is also applicable here. Namely, all scientific committees and bodies, whose membership of KUAS employees was described in the previous chapter, are also important for the development of the profession. In addition to the above-mentioned editorial boards, teachers are members of various working groups, one teacher is a member of the working group for vegetables, one teacher is a member of the working group for industrial plants (working groups within the National Program for the Conservation and Sustainable Use of Plant Genetic Resources for Food and Agriculture in the Republic of Croatia), one teacher is a member of the Commission for the Establishment of a Knowledge and Innovation System in Agriculture (AKIS Coordination Body), several teachers are members of various professional/scientific associations, members of the organizing committees of various events related to the profession (Fruit Day, Vegetable Day, Lawn Day, etc.) and others.

External collaborators are recognized as experts in their fields, they have published adequate professional papers and have the appropriate work experience.

Explained under the same criterion in the previous sub-chapter.

## 5.3. The higher education institution influences the economy and society in general through the scientific and/or artistic work of its teachers

The higher education institution has appropriate mechanisms in place to disseminate its activities to society.

KUAS teachers participate in conferences, congresses, workshops, events, etc. They publish papers in various professional, scientific and popular journals, and basic information about projects led by the KUAS is published on the website (<u>Domestic Projects</u>, <u>International Projects</u>). In addition, for projects financed under the EIP AGRI, there is an obligation to publish a summary of the project on the EIP AGRI website, i.e. on the EU CAP NETWORK website, and a comprehensive brochure about the project on the project promoter's website, which the VC did for the project it was the promoter (<u>EU CAP NETWORK DIGIP</u>, <u>brochure</u>). Also, KUAS as the holder of the SOFI project financed by the European Climate Initiative (<u>EUKI</u>) regularly publishes information on their website and thus influences greater international visibility.

KUAS teachers participate in panel discussions in the field of interest, in radio and TV shows, on various portals, etc. KUAS itself organizes lectures for the public, forums, etc. with topics from the field of its activities. KUAS financially supports the participation of first-time teachers in scientific and professional conferences, as well as the publication of papers in reputable journals in which publication is charged. if participation or publication of the paper is not financed from the project or other sources, Information about events is also published on the KUAS website. In this way, by publicly presenting the results of their work and the work of KUAS as a whole, KUAS teachers have an impact on the economy and society as a whole.

#### The higher education institution develops cooperation with external stakeholders.

KUAS has a well-developed cooperation with external stakeholders. All teachers have some form of cooperation with external stakeholders in the field of their courses. There is cooperation with several associations related to agricultural production (beekeeping, dairy, cattle, etc.), cooperation with local action groups and development agencies, local community, cooperation with economic entities interested in research in KUAS (areas of plant protection, fertilization, demonstration experiments with varieties and hybrids of agricultural plants, in the field of livestock breeding, etc.), etc. In addition, KUAS also implements projects in which economic entities are partners in the project, such as the previously described projects from Sub-measure 16.1. "Support for the establishment and operation of the European Innovation Partnership (EIP) Operational Groups for Productivity and Sustainability" – implementation of operation type 16.1.2. Operational Groups", in which, in addition to family farms, local self-government units also participated as partners. Cooperation with a large number of economic entities has also been established for the purpose of realization of final professional practice and field teaching. KUAS also cooperates with local self-government, so the city of Križevci and Koprivnica-Križevci County co-financed several projects implemented or in which KUAS participated.

The higher education institution is involved in the formulation of public policies in the context of the scientific and/or artistic field and area in which it operates.

In the period from 2022 to 2023, two teachers of KUAS participated in the work of the Expert Working Group for the Development of the Bioeconomy Strategy until 2035, the working draft of which was drafted.

Higher education institution teachers are involved in different scientific or management bodies, both national and international.

As already stated under an almost identical criterion in subchapter 5.1, KUAS teachers are included exclusively in scientific national committee.

Higher education institution teachers participate in national and international reviews of projects, programmes and scientific papers.

In the period from 2019 to 2023, two teachers from the Križevci University of Applied Sciences participated in reviews of national research projects in the field of beekeeping. Data on participation in the work of the Editorial Boards, including reviews of scientific papers, are presented in <u>Table 5.8.</u>

5.4. Doctoral studies of the higher education institutions are aligned with the higher education institution's strategic programme, state-of-the-art scientific/artistic achievements, or professional standards and internationally accepted standards of high-quality doctoral education, where applicable

Not applicable

## 5.5. The higher education institution applies the principles of open science in its activities, processes and acts

The higher education institution adopted an open science policy encouraging the application of principles of open science at an institutional level and ensuring open access to student theses (bachelor and master theses and doctoral dissertations), scientific and professional publications, educational resources and research data from its staff and students.

KUAS has accepted the <u>principles of open sciencepolicy</u>. principles of open science policy. At the institutional level, all students and employees of KUAS have access to evaluation papers through the DABAR portal, educational and scientific content published in open access journals and books, and research data of employees are available in supplemental materials of papers published in open access. It should be noted that students and teachers of KUAS have access to referral citation databases such as Web of Science, Scopus and EBSCO, using the personal authentication code of the University Computing Center, through the proxy server of the National and University Library.

The higher education institution has its own institutional repository allowing its staff and students to store their graded theses, scientific and professional publications, educational content and research data, and it ensures open access to them.

KUAS has an institutional repository in which it enables its employees and students to store and ensure open access to their assessment papers and educational content <a href="https://repozitorij.vguk.hr/">https://repozitorij.vguk.hr/</a>. The number of grading papers defended in the past five years that were granted open access is shown in <a href="Table 5.5">Table 5.5</a>.

The higher education institution encourages and evaluates the application of open science principles through different in-house and/or institution validation processes.

All publications, specifically papers and books published in open access at KUAS, are treated in the same way as those publications published in closed repositories or as printed publications.

If the higher education institution has an organised publishing activity, the publications (books, journals and other types) are available in open access.

All electronic editions of books published by KUAS are available on the institution's <u>website</u> under the following link.

#### **ANNEX**

#### ANALYTIC SUPPLEMENT TO SELF-EVALUATION REPORT

#### INTRODUCTORY NOTES

The tables, that is, the data contained in this document are presented as they should appear in the Analytic Supplement, which is an integral part of the self-evaluation report of the higher education institution in the procedure of re-accreditation of HEIs. The data in the Analytic Supplement constitute evidence for the evaluation of one or more elements of the *Quality Standards in the Procedure of Re-Accreditation of Higher Education Institutions*.

The Analytic Supplement shall be prepared by the higher education institution in Croatian and English and shall comprise three parts:

- I.) Annex containing evidence on the fulfilment of minimal conditions pursuant to the provisions of the Act on Quality Assurance in Higher Education and Science (Official Gazette, 151/2022);
- II.) Annex containing learning outcomes of the study programmes;
- III.) Annex containing other information proving compliance with the *Quality Standards in the Procedure of Re-Accreditation of Higher Education Institutions*.

For all tables which require data to be added for an individual study programme, please see instructions above the table on how to identify the programme – *Study programme name (type, level, SP Register code and SP Register entry code)*. Codes should be retrieved from the Register of Study Programmes (SP Register). If the *SP Register code* and the *SP Register entry code* for a particular study programme are identical, please only add the code once. If they are not identical, please add both codes. Examples of correct programme identification:

- identical SP Register code and entry code

Psychology (undergraduate university study programme, 292)

- not identical SP Register code and entry code

Electrical Engineering and Information Technology (undergraduate university study programme, 51, 2812)

Evaluated year – N, when used in a table, it refers to the academic or calendar year when the evaluation is conducted and is the last year for which the HEI has confirmed they have a full set of data. The periods for which data are required are included in the names of the tables. As a rule, these are the last 3 or 5 years, including the year which has been chosen as the evaluated year.

#### Abbreviations and definitions in the text:

#### **Abbreviations:**

HEI - higher education institution

SP - study programme

AQAHES- Act on Quality Assurance in Higher Education and Science (Official Gazette, 151/22)

AHESA - Act on Higher Education and Scientific Activity (Official Gazette, 119/22)

SP Register - Register of Study Programmes (https://hko.srce.hr/usp/index)

CES - Croatian Employment Service

#### **Definitions:**

Full-time students - students enrolled in full-time studies

Part-time students - students enrolled in part-time studies

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Table 1a. Teacher-student ratio (must not exceed 1 : 30) at the higher education institution (Art. 12, Par. 8 and 9 of the AQAHES)

The ratio between the total number of enrolled students and the total number of full-time teachers and those with nominal teaching titles shall not exceed 30:1. When calculating the ratio, the number of working hours of teachers who are not employed full time is added up to the number of working hours required of a full-time teacher. A complexity coefficient of 1 is used for teachers, 0.75 for senior assistants and 0.5 for assistants. A complexity coefficient of 0.5 is used for teachers with nominal teaching titles. A complexity coefficient of 1 is used for full-time students and 0.5 for part-time students.

Total number of students studying full time at all study programmes	127
(Coefficient 1)	
Total number of students studying part time at all study programmes	(226)
(Coefficient 0.5)	113
I. TOTAL NUMBER OF STUDENTS:	240
Total number of teachers at the higher education institution (Coefficient 1)	28
Total number of senior assistants at the higher education institution	-
(Coefficient 0.75)	
Total number of assistants at the higher education institution (Coefficient 0.5)	(3)
	1,5
Total number of nominal* teachers at the higher education institution	(10)
(Coefficient 0.5)	5
II. TOTAL NUMBER OF TEACHERS AT THE HEI:	34,5
TEACHER (II.) /STUDENT (I.) RATIO	7

<sup>\*</sup>This refers to nominal teachers in the current academic year. If the nominal teacher is working at more than one HEI, the coefficient of 0.5 may only be used for one HEI.

Table 1b. Value of all types of direct instruction included in the study programme (Art. 12, Par. 2 of the AQAHES)

For the purpose of initial accreditation of study programmes, the higher education institution shall provide full-time employment on an indefinite term basis for teachers who deliver at least 50% of all forms of direct instruction in the case of university study programmes, i.e. 35% of all forms of direct instruction in the case of professional study programmes.

1b-1 Agriculture (Professional undergraduate study programme, 6<sup>th</sup> level, 1031, 3666)

Total contact hours of direct instruction included in the study programme	7395,5
(A)	1373,3

Teacher name and surname	Course name	Lectu res	Prac ticals	Semi nars	Total contact hours	Total in %: Teacher contact hours/progra mme contact hours (A)
Damir Alagić	Health, breeding and welfare of horses	15	10,5	4,5	30,0	0,4
Damir Alagić	Animal hygiene, ethology and ecology	45	22,5	15	82,5	1,1
Damir Alagić	Hunting and cynology	45	0	0	45,0	0,6
Damir Alagić	Principles of zootechnics	0	7,5	0	7,5	0,1
Damir Alagić	Biosecurity on farms	22,5	15	7,5	45,0	0,6
Marcela Andreata Koren	Forage crops and grass production	67,5	52,5	15	135,0	1,8
Marcela Andreata Koren	Forage crops and grass production	45	37,5	15	97,5	1,3
Marcela Andreata Koren	Forage crops and grass production	15	10,5	4,5	30,0	0,4
Zvjezdana Augustinović	Principles of ecology	22,5	0	22,5	45,0	0,6
Zvjezdana Augustinović	Industrial crop production	45	37,5	15	97,5	1,3
Zvjezdana Augustinović	Industrial crop production	67,5	37,5	15	120,0	1,6
Dražen Čuklić	Dairy and cheese production	45	15	15	75,0	1,0
Dražen Čuklić	Cattle raising	45	15	22,5	82,5	1,1
Dražen Čuklić	Cattle raising	45	7,5	15	67,5	0,9
Renata Erhatić	Cereals and grain legumes	15	10,5	4,5	30,0	0,4
Renata Erhatić	Medicinal and aromatic plants	45	22,5	22,5	90,0	1,2
Renata Erhatić	Agricultural botany	0	45	0	45,0	0,6
Renata Erhatić	Grain legumes	45	19,5	7,5	72,0	1,0
Renata Erhatić	Cereal crops	45	33	15	93,0	1,3
Dušanka Gajdić	Trade and distribution of agri-food products	45	45	0	90,0	1,2
Dušanka Gajdić	Quality management in agricultural production	15	7,5	7,5	30,0	0,4
Dušanka Gajdić	Principles of Agricultural Economics	0	42	15	57,0	0,8
Matea Habuš	Quality management in agricultural production	22,5	15	15	52,5	0,7
Matea Habuš	Storage and quality management of agricultural products	0	30	15	45,0	0,6
Dijana Horvat	Principles of genetics and plant breeding	45	4,5	18	67,5	0,9
Dijana Horvat	Seed production and seed conditioning	45	24	7,5	76,5	1,0
Marijana Ivanek- Martinčić	Principles of plant protection	45	52,5	0	97,5	1,3

	T		1			
Marijana Ivanek-	Integrated protection of	4.5	57	0	102.0	1 4
Martinčić	field crops and	45	57	0	102,0	1,4
) / '' T 1	vegetables					
Marijana Ivanek-	Plant protection	33,75	15	7,5	56,3	0,7
Martinčić	methods					,
Marija Jakuš	Farm mechanization and	0	52,5	15	67,5	0,9
Hrestak	automation		,-			
Marija Jakuš	Basics of agricultural	0	67,5	15	82,5	1,1
Hrestak	engineering	· ·	07,5	13	02,5	1,1
Marija Jakuš	Machines and					
Hrestak	equipment in animal	0	45	0	45,0	0,6
	husbandry					
Marija Jakuš	Housing facilities in	0	7,5	7,5	15,0	0,2
Hrestak	zootechnics	U	7,5	7,5	13,0	0,2
Tatjana Jelen	Pig raising	67,5	15	15	97,5	1,3
Tatjana Jelen	Pig raising	15	10,5	4,5	30,0	0,4
Tatjana Jelen	Sheep and goat raising	67,5	15	22,5	105,0	1,4
G:1 :: T v: :/	Agricultural financing		20		00.0	1.0
Silvije Jerčinović	forms	45	30	15	90,0	1,2
Silvije Jerčinović	Marketing	45	64,5	15	124,5	1,6
Silvije Jerčinović	Rural tourism	4,5	0	7,5	12,0	0,2
Dragutin	Viticulture and wine					·
Kamenjak	production	67,5	0	0	67,5	0,9
Dragutin	•					
Kamenjak	Fruit growing	45	0	0	45,0	0,6
Dragutin	Principles of					
Kamenjak	Agricultural Economics	67,5	0	0	67,5	0,9
Sandra Kantar	Rural sociology	22,5	15	7,5	45,0	0,6
Saliula Kalital		22,3	13	7,3	43,0	0,0
Sandra Kantar	Principles of business ethics	45	30	15	90,0	1,2
Can In IV and an		15	27	7.5	70.5	1 1
Sandra Kantar	Rural development	45	27	7,5	79,5	1,1
Sandra Kantar	Rural tourism	7,5	0	0	7,5	0,1
Ivka Kvaternjak	Principles of plant	33,75	15	7,5	56,3	0,8
3	nutrition	,		. ,-		- , -
Ivka Kvaternjak	Farm organic waste	7,5	0	7,5	15,0	0,2
	management					ŕ
Ivka Kvaternjak	Conservation agriculture	7,5	7,5	0	15,0	0,2
Ivka Kvaternjak	Organic agriculture	15	15	0	30,0	0,4
Ivka Kvaternjak	Plant nutrition	67,5	31,5	30	129,0	1,7
	Exploitation and					
Vlado Kušec	maintenance of farm	22,5	15	7,5	45,0	0,6
	machinery					
Vlado Kušec	Farm mechanization and	22.5	0	0	22.5	0,3
Viado Kusec	automation	22,5	U	U	22,5	0,3
171. 1. 17. Y	Mechanisation in plant	(7.5	07.5	0	1650	2.2
Vlado Kušec	production	67,5	97,5	0	165,0	2,2
D : 34 ~''	Digestion physiology	22.77	22.5	11,2	(7.5	0.0
Dejan Marenčić	and livestock nutrition	33,75	22,5	5	67,5	0,9
Dejan Marenčić	Animal nutrition	67,5	30	7,5	105,0	1,4
-	Farm organic waste					
Dejan Marenčić	management	7,5	7,5	0	15,0	0,2
Dejan Marenčić	Ruminant nutrition	45	7,5	7,5	60,0	0,8
201111111111111	Tomminum matricin		,,,,	1,50	50,0	0,0

Goran Mikec	Digestion physiology	0	22,5	0	22,5	0,3
	and livestock nutrition		· ·	-	·	•
Goran Mikec	Animal nutrition	0	49,5	0	49,5	0,7
Goran Mikec	Dairy and cheese production	0	37,5	0	37,5	0,5
Goran Mikec	Cattle raising	0	37,5	7,5	45,0	0,6
Goran Mikec	Hunting and cynology	0	22,5	22,5	45,0	0,6
Goran Mikec	Cattle raising	0	34,5	0	34,5	0,5
Goran Mikec	Quality and safety of animal products	0	12	0	12,0	0,2
Goran Mikec	Animal hygiene, ethology and ecology	0	30	0	30,0	0,4
Goran Mikec	Ruminant nutrition	0	19,5	0	19,5	0,3
Goran Mikec	Principles of zootechnics	0	30	0	30,0	0,4
Goran Mikec	Sheep and goat raising	0	42	0	42,0	0,6
Valentina Papić Bogadi	English language	67,5	67,5	0	135,0	1,8
Valentina Papić Bogadi	Business English language	45	22,5	22,5	90,0	1,2
Tomislava Peremin Volf	Vegetable production in protected area	45	30	15	90,0	1,2
Tomislava Peremin Volf	Vegetable production	67,5	67,5	15	150,0	2,0
Tomislava Peremin Volf	Vegetable production	45	64,5	22,5	132,0	1,8
Sonja Rajić Bistrović	Applied chemistry	67,5	30	15	112,5	1,5
Iva Rojnica	Principles of agroclimatology	22,5	34,5	0	57,0	0,8
Iva Rojnica	Principles of plant production	67,5	45	15	127,5	1,7
Siniša Srečec	Hop growing and berries	45	0	0	45,0	0,6
Siniša Srečec	Storage and quality management of agricultural products	67,5	13,5	0	81,0	1,1
Siniša Srečec	Quality management in agricultural production	7,5	0	0	7,5	0,1
Siniša Srečec	Principles of biometrics and methods of elaboration of final thesis	22,5	0	0	22,5	0,3
Siniša Srečec	Beekeeping and honey plants	15	0	0	15,0	0,2
Siniša Srečec	Agricultural botany	45	0	0	45,0	0,6
Miomir Stojnović	Exploitation and maintenance of farm machinery	22,5	15	7,5	45,0	0,6
Miomir Stojnović	Farm mechanization and automation	22,5	0	0	22,5	0,3
Miomir Stojnović	Basics of agricultural engineering	45	0	0	45,0	0,6

Miomir Stojnović	Housing facilities in zootechnics	67,5	0	0	67,5	0,9
Miomir Stojnović	Housing facilities in zootechnics	15	0	0	15,0	0,2
Milan Suša	Organization of production, costs and calculations in zootechnics	0	52,5	15	67,5	0,9
Milan Suša	Production organisation in plant production	0	45	0	45,0	0,6
Milan Suša	Costs and calculations	0	52,5	15	67,5	0,9
Milan Suša	Costs and calculations in plant production	0	15	7,5	22,5	0,3
Kristina Svržnjak	Principles of agricultural management	22,5	22,5	0	45,0	0,6
Kristina Svržnjak	Marketing and farm management	15	7,5	7,5	30,0	0,4
Kristina Svržnjak	Entrepreneurship in agriculture	22,5	22,5	0	45,0	0,6
Kristina Svržnjak	Rural development	22,5	15	7,5	45,0	0,6
Kristina Svržnjak	Rural tourism	3	7,5	0	10,5	0,1
Kristina Svržnjak	Agricultural policy	22,5	0	22,5	45,0	0,6
Iva Šikač	Hop growing and berries	0	30	15	45,0	0,6
Iva Šikač	Viticulture and wine production	0	67,5	0	67,5	0,9
Iva Šikač	Fruit growing	0	52,5	15	67,5	0,9
Krunoslav Škrlec	Principles of agricultural management	22,5	22,5	0	45,0	0,6
Krunoslav Škrlec	Entrepreneurship in agriculture	22,5	22,5	0	45,0	0,6
Krunoslav Škrlec	Application of mathematics and informatics in agriculture	22,5	15	7,5	45,0	0,6
Andrija Špoljar	Land reclamation and soil protection	45	45	0	90,0	1,2
Andrija Špoljar	Conservation agriculture	7,5	0	7,5	15,0	0,2
Andrija Špoljar	Soil science	67,5	57	0	124,5	1,7
Tatjana Tušek	Anatomy and physiology of livestock	45	30	15	90,0	1,2
Tatjana Tušek	Digestion physiology and livestock nutrition	33,75	22,5	11,2 5	67,5	0,9
Tatjana Tušek	Quality and safety of animal products	22,5	15	7,5	45,0	0,6
Tatjana Tušek	Beekeeping and honey plants	30	22,5	22,5	75,0	1,0
Tatjana Tušek	Biosecurity on farms	22,5	15	7,5	45,0	0,6
Marijana Vrbančić Igrić	Horses and equestrian sports	22,5	15	7,5	45,0	0,6
Marijana Vrbančić Igrić	Principles of zootechnics	67,5	37,5	15	120,0	1,6
Marijana Vrbančić Igrić	Poultry raising	45	22,5	22,5	90,0	1,2

Marijana Vrbančić Igrić	Principles of biometrics and methods of elaboration of final thesis	0	22,5	0	22,5	0,3
		Over	all:		7080	96,00

1b-2 Agriculture (Professional Graduate Study Programme, 7th level, 1081, 3692)

Total contact hours of direct instruction included in the stu	dy programme	1485
(A)		1403

Teacher name and surname	Course name	Lect ures	Prac ticals	Semi nars	Total contact hours	Total in %: Teacher contact hours/progra mme contact hours (A)
Marcela Andreata- Koren	Sustainable and organic production and fodder technology	5	5	0	10	0,7
Damir Alagić	Quality assessment and bio- dynamics of animal products	15	0	0	15	1,0
Damir Alagić	Housing hygiene and welfare of farm animals	22,5	7,5	0	30	2,0
Zvjezdana Augustinović	Sustainable development in agriculture	21	6	6	33	2,2
Dražen Čuklić	Sustainable and organic cattle production of meat and milk	60	15	15	90	6,1
Renata Erhatić	Cultivation of medicinal and aromatic plants in sustainable and organic agriculture	22,5	7,5	0	30	2,0
Marijana Ivanek- Martinčić	Ecologically acceptable methods of plant protection	60	15	15	90	6,1
Tatjana Jelen	Sustainable and organic approach to sheep and goat raising	60	15	15	90	6,1
Tatjana Jelen	Zootechnics	21	6	6	33	2,2
Silvije Jerčinović	Ecotourism	19,5	4,5	4,5	28,5	1,9
Silvije Jerčinović	Sustainable development in agriculture	19,5	4,5	4,5	28,5	1,9
Dragutin Kamenjak	Sustainable fruit and grapes production systems	30	7,5	7,5	45	3,0
Sandra Kantar	Ecotourism	21	6	6	33	2,2
Sandra Kantar	Sustainable development in agriculture	19,5	4,5	4,5	28,5	1,9
Vlado Kušec	Mechanisation in sustainable and organic plant production	30	7,5	7,5	45	3,0

Ivka Kvaternjak	Production and use of fertilizers in sustainable and organic agriculture	60	15	15	90	6,1
Dejan Marenčić	Information technologies and research in agriculture	15	15	0	30	2,0
Dejan Marenčić	Zootechnics	19,5	4,5	4,5	28,5	1,9
Dejan Marenčić	Selected chapters in animal nutririon	60	15	15	90	6,1
Tomislava Peremin Volf	Sustainable vegetable production systems	60	15	15	90	6,1
Siniša Srečec	Information technologies and research in agriculture	15	0	7,5	22,5	1,5
Miomir Stojnović	Mechanisation in sustainable and organic animal production	30	7,5	7,5	45	3,0
Kristina Svržnjak	Ecotourism	19,5	4,5	4,5	28,5	1,9
Kristina Svržnjak	Market and marketing of sustainable and organic agriculture products	60	15	15	90	6,1
Krunoslav Škrlec	Information technologies and research in agriculture	15	22,5	0	37,5	2,5
Andrija Špoljar	Soil protection	60	15	15	90	6,1
Tatjana Tušek	Quality assessment and bio- dynamics of animal products	0	7,5	7,5	15	1,0
Marijana Vrbančić Igrić	Zootechnics	19,5	4,5	4,5	28,5	1,9
Overall: 1315 88,00						

1b-3 Management in Agriculture (Professional graduate study programme, 7th level, 1088, 3694)

Total contact	hours of direc	ct instruction	included in	the study programme	<b>#2</b> 0
					520
(A)					

Teacher name and surname	Course name	Lect ures	Pra ctic als	Semi nars	Total contact hours	Total in %: Teacher contact hours/program me contact hours (A)
Dušanka Gajdić	Book-keeping in agricultural enterpreneurship	17,5	10	2,5	30	5,80
Dušanka Gajdić	Quality management systems	10	5	2,5	17,5	3,38
Dušanka Gajdić	Financial report analysis	17,5	10	2,5	30	5,80
Siniša Srečec	Quality management systems	2,5	0	0	2,5	0,48
Silvije Jerčinović	Agricultural entrepreneurship	17,5	7,5	5	30	5,80

Silvije Jerčinović	Marketing in agriculture	12,5	7,5	5	25	4,83	
Silvije Jerčinović	Market research methods	12,5	5	2,5	20	3,86	
Silvije Jerčinović	Destination management in rural tourism	4	2,5	0	6,5	1,26	
Sandra Kantar	Rural development projects	6,25	2,5	1	9,75	1,88	
Sandra Kantar	Destination management in rural tourism	4	0	2,5	6,5	1,26	
Valentina Papić Bogadi	Business English language	10	7,5	2,5	20	3,86	
Valentina Papić Bogadi	Business German language	10	7,5	2,5	20	3,86	
Kristina Svržnjak	Agricultural economics	17,5	7,5	5	30	5,80	
Kristina Svržnjak	Rural development projects	6,25	2,5	1,5	10,25	1,98	
Kristina Svržnjak	Agriculture in the European Union	12,5	5	2,5	20	3,86	
Kristina Svržnjak	Destination management in rural tourism	4,5	2,5	0	7	1,35	
Krunoslav Škrlec	Quantitative methods for management in agriculture	12,5	7,5	5	25	4,83	
Krunoslav Škrlec	Management in agriculture	22,5	7,5	5	35	6,76	
Krunoslav Škrlec	Business decision-making	12,5	5	2,5	20	3,86	
Krunoslav Škrlec	Project management	20	5	0	25	4,83	
Overall: 390 75							

Table 1c. Space and equipment\* (Art. 12, Par. 1 and Art. 10, Par. 3 of the AQAHES)

The higher education institution shall ensure a minimum of  $1~{\rm m}^2$  of space per student. The minimum space per student requirement is calculated by comparing the total space taken up by classrooms, laboratories and other spaces intended for teaching with the total number of students enrolled at the higher education institution.

The higher education institution shall ensure an adequate supply of computers to be made available to students, as well as wireless internet access in all rooms intended for students.

<sup>\*</sup> The data refer to the entire HEI because it is not possible to provide data on a single study programme.

SPACE USED FOR TEACHING (A)	1486
SPACE PER STUDENT (NUMBER OF STUDENTS/SPACE - A)	(353/1486) 4,21

Table 1d. Teachers employed in the field in which the higher education institution offers study programmes (Art. 10, Par. 5 of the AQAHES)

A university without constituent units with legal personality shall employ a minimum of 21 full-time teachers in scientific-teaching, i.e. artistic-teaching positions. At least three teachers shall be employed for each field in which the university offers study programmes. A faculty or arts academy shall employ a minimum of seven full-time teachers in scientific-teaching, i.e. artistic-teaching positions, three of which shall be employed in each field in which the faculty or arts academy offers study programmes. A polytechnic shall employ a minimum of seven full-time teachers in teaching positions, three of which shall be employed in each field in which the polytechnic offers study programmes.

SCIENTIFIC/ARTISTIC FIELD* IN WHICH THE HEI OPERATES	NUMBER OF TEACHERS EMPLOYED IN A POSITION/TITLE** IN THE SCIENTIFIC/ARTISTIC FIELD
Scientific field 1 Biotechnical Sciences, Agriculture	19
Scientific field 2 Social Sciences, Economy	3

<sup>\*</sup> A scientific/artistic field in which the HEI operates is any field in which the HEI offers a study programme.

<sup>\*\*</sup> Universities, faculties and academies provide the number of teachers in scientific-teaching, i.e. artistic-teaching positions, while polytechnics provide the number of teachers in teaching positions.

#### ANNEX II. LEARNING OUTCOMES

## TABLES RELATED TO ASSESSMENT AREA II. STUDY PROGRAMMES AND LIFELONG LEARNING PROGRAMMES

NOTE: These tables contain compulsory learning outcomes for a single study programme. Please add the code and description for each learning outcome (LO) in the separate table below.

Table 2.1. Learning outcomes of the study programme for the evaluated academic year

Table 2.1.1. Agriculture (Professional undergraduate study programme, 6th level, 1031, 3666)

Learning outcomes* of	LO	LO	LO	LO	LO	LO	LO	LO	LO	LO	LO	LO	LO	LO	LO
the study programme	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Total number of courses															
per learning outcome	52	35	40	14	3	43	3	22	26	2	41	5	3	19	19
			]	First ye	ear (I. a	nd II.	semest	er)							
Application of mathematics	+	+									+				
and informatics in															
agriculture															
Applied chemistry	+		+												
Principles of ecology	+		+												
Principles of	+	+		+											
agroclimatology															
Soil science	+			+	+										
Communication skills		+				+									
Basics of agricultural	+							+	+						
engineering															
Principles of zootechnics	+	+						+							
Principles of plant	+	+							+						
production															
English language						+	+								
German language						+	+								
Agricultural botany	+			+		+									
Principles of Agricultural	+	+								+	+		+		
Economics															
Rural sociology		+								+	+				
			Plar	t prod	uction	(III. –	V. sen	nester)							
Fruit growing	+		+	+		+			+		+			+	
Costs and calculations in	+								+						
plant production															
Plant nutrition	+		+			+									
Principles of plant	+	+	+						+		+				
protection															
Mechanisation in plant	+		+						+		+				
production															
Grain legumes	+		+	+		+			+		+				
Industrial crop production	+		+	+		+			+		+				
Cereal crops	+		+	+					+		+				
Vegetable production	+		+	+		+			+		+			+	
Integrated protection of	+	+	+			+			+		+				
field crops and vegetables															

	1							1						
Viticulture and wine	+		+	+					+		+		+	+
production														
Storage and quality	+	+				+							+	+
management of agricultural														1
products														
Seed production and seed	+								+		+		+	+
conditioning														
Principles of genetics and	+								+	+				1
plant breeding														
Production organisation in	+	+							+					
plant production														
			Z	ootech	nics (I	II. – V	seme	ster)						
Anatomy and physiology	+							+						
of cattle														
Cattle raising	+	+	+			+		+		+			+	
Poultry raising	+	+	+			+		+		+			+	
Animal nutrition	+							+						+
Machines and equipment in	+							+						
animal husbandry														
Biosecurity on farms								+						+
Ruminant nutrition	+	+				+		+		+				+
Sheep and goat raising	+	+	+			+		+		+			+	<u> </u>
Animal hygiene, ethology	+	+	+			+		+		+			+	+
and ecology						ļ .				-				
Forage crops and grass	+	+	+			+				+				
production								<u> </u>						
Organization of production,	+					+		+						
costs and calculations in														
zootechnics														<u> </u>
Quality and safety of								+					+	+
animal products														
Pig raising	+	+	+			+		+		+			+	
Dairy and cheese											+		+	+
production														<u> </u>
		Ma	anagen	nent ir	agric	ılture (	III V	/. seme	ester)		1	ı	ı	
Digestion physiology and	+							+						+
livestock nutrition														
Digestion physiology and	+	+	+			+				+				
livestock nutrition														
Cattle raising	+	+	+	<u> </u>		+		+		 +			+	
Farm mechanization and	+							+	+					
automation		<u> </u>	<u> </u>	<u> </u>							<u> </u>			
Principles of agricultural		+								+				
management														
Principles of business						+								
ethics														
Marketing		+								+				
Industrial crop production	+		+	+		+			+	+				
Vegetable production	+		+	+		+			+	+			+	
Plant protection methods	+		+	<del>-</del>		+							<u> </u>	
Costs and calculations	+	+	<u> </u>			+								
	F	+												
Agricultural financing		+				+								
forms		<u>I</u>	l	l	1	1	<u> </u>				<u> </u>	<u> </u>	<u> </u>	<u> </u>

	1	ı	1	1	1	ı	1	1	1	ı	1	1	1	1	_
Entrepreneurship in		+				+									
agriculture															
Rural development		+				+					+		+		
Trade and distribution of		+				+					+				+
agri-food products					X 7T										
	1			1	V1. S	emeste	r	1	1	I	1	1		1	1
Agricultural policy		+				+							+		
Principles of biometrics	+	+				+					+				
and methods of elaboration															
of final thesis						1									
Practical training						+					+				
Final thesis	1.0	+	1.0	1.0	1.0	+	1.0	1.0	1.0	1.0	+	1.0	1.0	1.0	1.0
	LO	LO	LO	LO	LO	LO	LO	LO	LO	LO	LO	LO	LO	LO	LO
	1	2	3	4 Electiv	5	6	7	8	9	10	11	12	13	14	15
F: 1			1	Electiv	e cours	ses III.	semes	ster			l	l	l	l	
Fisheries and water			+												+
protetion  Medicinal and aromatic			+						+		+	+			
plants									_		_	_			
Business English/German						+	+								
language															
Exploitation and								+	+						
maintenance of farm								'	'						
machinery															
Poultry raising															
Conservation agriculture			+		+				+						
Cereals and grain legumes	+		+	+	'				+		+				
Trade and food marketing	'		<u>'</u>	'		+					+				+
Bioethics		+	+			+					+				'
Health, breeding and		'	-			!					!				
welfare of horses															
wentere of noises			<u> </u>	Electiv	e cours	ses IV	semes	ter							l
Land reclamation and soil	+		+		+		Scilics		+						
protection	'		'		'				'						
Organic agriculture			+						+						+
Beekeeping and honey			+						'			+		+	
plants														'	
Farm organic waste	+		+												+
management															
Rural tourism						+					+				
Hygiene, ethology and			+												
ecology on the farm															
Ornamental plants and			+												
garden design															
Housing facilities in			+					+							
zootechnics															
				Electiv	e cour	ses V.	semes	ter							
Horses and equestrian								+							+
sports															
Pig raising	+	+	+			+		+			+			+	
Principles of hygiene and								+						+	+
technology of meat and															
meat products															

Marketing and farm		+						+			
management											
Hunting and cynology			+								+
Quality management in agricultural production		+			+			+		+	+
Forage crops and grass production	+	+	+		+			+			
Vegetable production in protected area	+		+	+	+		+	+		+	
Hop growing and berries	+		+	+	+		+	+			

Learning outcomes* of	LO	LO	LO	LO	LO	LO	LO	LO	LO	LO	LO	LO	LO	LO	LO	LO
the study programme	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
<b>Total number of courses</b>					_	_	_			_	_					
per learning outcome	21	18	14	4	5	3	8	10	4	5	5	18	13	8	18	17
		1		]	First ye	ear (I. a	and II.	semest	er)	П	П	П	П	П	П	1
Application of mathematics																
and informatics in																
agriculture																
Applied chemistry																
Principles of ecology																
Principles of																
agroclimatology																
Soil science																
Communication skills																
Basics of agricultural					+									+		
engineering																
Principles of zootechnics															+	
Principles of plant	+					+										
production																
English language																
German language																
Agricultural botany				+												
Principles of Agricultural								+								
Economics																
Rural sociology																
				Plan	t prod	uction	(III. –	V. sen	nester)							
Fruit growing	+	+	+					+								
Costs and calculations in								+								
plant production																
Plant nutrition	+		+													
Principles of plant				+												
protection																
Mechanisation in plant					+											
production																
Grain legumes	+	+	+													
Industrial crop production	+	+	+													
Cereal crops	+	+	+													
Vegetable production	+	+	+													
Integrated protection of				+												
field crops and vegetables																
1	1	1	1	1	1	1	1	1	1							

Viticulture and wine	+	+	+													
production																
Storage and quality																
management of agricultural																
products																
Seed production and seed	+	+	+			+										
conditioning																
Principles of genetics and		+				+										
plant breeding																
Production organisation in	+							+								
plant production																
	I		I	Z	ootech	nics (I	I. – V.	semes	ster)		1			1	I	
Anatomy and physiology									,			+			+	+
of cattle																
Cattle raising												+	+		+	+
Poultry raising												+	+		+	+
Animal nutrition												+	'		!	+
												+		+		'
Machines and equipment in												+		+		
animal husbandry															1	
Biosecurity on farms												+			+	+
Ruminant nutrition												+				+
Sheep and goat raising												+	+		+	+
Animal hygiene, ethology													+		+	
and ecology																
Forage crops and grass	+	+														
production																
Organization of production,								+					+			
costs and calculations in																
zootechnics																
Quality and safety of													+		+	+
animal products																
Pig raising												+	+		+	+
Dairy and cheese													+	+		
production																
			Ma	nagen	nent in	agricu	lture (	III V	. seme	ester)						
Digestion physiology and												+			+	+
livestock nutrition																
Digestion physiology and	+	+														
livestock nutrition																
Cattle raising												+	+		+	+
Farm mechanization and					+									+		
automation																
Principles of agricultural							+	+								
management																
Principles of business											+					
ethics																
Marketing							+		+	+						
Industrial crop production	+	+	+							<del>-</del>						
Vegetable production	+	+	+													
		Г	+	+												
Plant protection methods	+		+	+												
Costs and calculations								+								
Agricultural financing							+	+								
forms																

i																
Entrepreneurship in							+				+					
agriculture		<u> </u>	<u> </u>		<u> </u>		<u> </u>		<u> </u>							
Rural development		<u> </u>					+	<u> </u>		<u> </u>						
Trade and distribution of		'			1		+	'	+	+	+		'	'		['
agri-food products		<u> </u>							<u> </u>	<u> </u>	<u> </u>	<u> </u>		<u> </u>		
					V	I. seme	ester									
Agricultural policy		'		Γ		<u> </u>	<u> </u>	+		ſ <u></u> '			<u> </u>	ſ <u></u> '	<u> </u>	
Principles of biometrics																
and methods of elaboration		'					'	'		'				'		['
of final thesis		l'							 		 	 	 			<u> </u>
Practical training																
Final thesis																
	LO	LO	LO	LO	LO	LO	LO	LO	LO	LO	LO	LO	LO	LO	LO	LO
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
	<u></u>						III. ser			<u></u>			<u></u>			
Fisheries and water												+	+			
protetion		'			1			'		'			'	'		['
Medicinal and aromatic	+	+														
plants		'						'		'			'	'		['
Business English/German																
language		'						'		'			'	'		['
Exploitation and					+									+		
maintenance of farm		'					'	'		'				'		['
machinery		'						'		'			'	'		['
Poultry raising							<u> </u>					+	+		+	+
Conservation agriculture							+	<b> </b>		<b> </b>			<b> </b>	<b> </b>		
Cereals and grain legumes	+	+	+	<del>                                     </del>	<del>                                     </del>	<del>                                     </del>	+	<del>                                     </del>	$\vdash$	$\vdash$	$\vdash$	$\vdash$	<del>                                     </del>	$\vdash$	<del> </del>	
Trade and food marketing	<del>                                     </del>	$\vdash$	<del>'</del>	<del>                                     </del>	+	+	<del>                                     </del>	<del>                                     </del>	<del> </del>	<del>                                     </del>	<del>                                     </del>	<del>                                     </del>				
Bioethics	+	<del></del>	<del>                                     </del>				+		<del>- '</del> '	'	+	<del>                                     </del>		<del> </del>	<del>                                     </del>	
Health, breeding and	-	<del></del>	-	<del> </del>	<del> </del>	<del> </del>	<del>                                     </del>	<del>                                     </del>	<del>                                     </del>	<del>                                     </del>	' '	+	<del>                                     </del>	<del>                                     </del>	+	+
welfare of horses		1 '					'		!	'	!	-	'	'		
Wellate of noises			<u> </u>	Flag	otiva c	Ollfano.	IV. ser	master	<u>                                     </u>	<u> </u>	<u> </u>	<u> </u>		<u> </u>	<u> </u>	<u> </u>
T 1 1ti and not				Eice	Tive co	Juises	TV. SCI	nester								
Land reclamation and soil		'						'		'			'	'		
protection	igwdown	<del></del> '	<del></del>	<del>                                     </del>	<u> </u>	<del>                                     </del>	<del> </del> '	<u> </u>	<u> </u>	<del> </del>	<u> </u>	<u> </u>	<u> </u> '	<del> </del>	<u> </u>	-
Organic agriculture	<del>                                     </del>	<u></u>	<del> </del>	<del>                                     </del>	<u> </u>	<del> </del>	<u> </u>	<u> </u> '	<u> </u>	<u> </u>	<u> </u>	<del>                                     </del>	<u> </u>	<u> </u>	<del> </del>	1
Beekeeping and honey		'						'		'		+	'	'		
plants		<u></u>	<del> </del>	<del>                                     </del>	<u> </u>	<del> </del>	<u> </u>	<u> </u>	<u> </u>	<b></b>	<u> </u>	<u> </u>	<u> </u>	<del>                                     </del>	ऻ	1
Farm organic waste		'			+		'	'	'	'	'	'	'	+		
management	$\sqcup$	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>		<u> </u>	1						
Rural tourism	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	+	<u> </u>	<u> </u>	+	<u> </u>					
Hygiene, ethology and		'						'	'	'	'	+	'	'	+	
ecology on the farm	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
Ornamental plants and	+	+						'		'			'	'		
garden design		<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u> '	<u> </u>	<u> </u>	<u>                                     </u>
Housing facilities in		'					'	'	'	'	'	'	'	+		
zootechnics		'	<u></u>		<u> </u>		'			<u> </u>			<u> </u>	<u> </u>	<u> </u>	
				Ele	ctive c	ourses	V. sen	nester	т——	т	т——	т——	т——	т		
Horses and equestrian		'						'		'		+	'	+	+	+
sports		<b>└</b>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u> '	<u> </u>	<u> </u>	<u> </u> '	<u> </u>	<u> </u>	<u> </u>	<u> </u> '	<u> </u>	<u> </u>
Pig raising		'			<u> </u>		<u> </u>	+	+	<u> </u>	+	+				
Principles of hygiene and		'						'		'			+	'	+	+
technology of meat and		'						'		'			'	'		
meat products		'	<u> </u>				'		<u> </u>							

Marketing and farm					+	+	+	+				
management												
Hunting and cynology											+	+
Quality management in									+			
agricultural production												
Forage crops and grass	+	+										
production												
Vegetable production in	+	+	+									
protected area												
Hop growing and berries	+	+	+									

### Agriculture (Professional Undergraduate Study Programme, 6th level, 1031, 3666)

\* Each programme learning outcome (LO) has a number/code which is assigned by the higher education institution. Please add this number/code to each learning outcome in the left column. Example legend of a list of LOs:

a list of LOs:	Learning outcome description
Learning outcome	Learning outcome description
number	
	tcomes common to the study program
LO 1	Apply knowledge from natural sciences in the interpretation of phenomena and processes and in solving practical problems in the field of agriculture
LO 2	Use information technologies in data collection and processing
LO 3	Assess the impact of agricultural production on the environment and apply environmentally acceptable procedures
LO 4	Interpret the climate and soil characteristics of a specific area and assess their suitability for a specific agricultural production
LO 5	Recommend soil repair measures
LO 6	Research and analyse professional and scientific literature and other reliable sources of information and interpret and present acquired knowledge
LO 7	To use a foreign language in the agricultural profession
LO 8	Analyse the specifics of livestock production and ways of raising farm animals
LO 9	Analyse the specifics of plant production and ways of growing agricultural crops
LO 10	Analyse and interpret socioeconomic characteristics of agriculture and rural areas
LO 11	Conduct practical research in the field of profession
LO 12	Organize the processing of certain agricultural products
LO 13	Assess the impact of agrarian policy measures on agriculture and rural development
LO 14	Choose appropriate methods and tools for assessing the quality of agricultural and food products, as well as standards and quality assurance systems in the production and distribution of agricultural and food products
LO 15	Apply current legal regulations in the field of agricultural production and the quality and distribution of agricultural and food products
Specific learn	ning outcomes for PLANT PRODUCTION
LO 16	Propose technology and organize the production of annual and perennial agricultural crops
LO 17	Choose for growing crops and varieties/hybrids in accordance with agroecological
LO 18	Recommend appropriate/optimal fertilization based on acquired knowledge
LO 19	Propose and implement plant protection measures
LO 20	Choose appropriate machines and devices for crop production and use them rationally
LO 21	Organize seed production of agricultural crops and evaluate its quality
Specific learn	ning outcomes for MANAGEMENT IN AGRICULTURE
LO 22	Plan strategies and apply appropriate activities in the preparation of business plans and

LO 23	Apply economic, business and financial analysis to support decision-making in agricultural management
LO 24	Analyse the market of agricultural and food products and trends in agriculture
LO 25	Apply marketing strategies to increase sales of agricultural products and services
LO 26	Implement ethical and socially responsible behaviour of individual participants in the business process
Specific learn	ning outcomes for ZOOTECHNICS
LO 27	Plan an appropriate system of breeding and exploitation of farm animals
LO 28	Organize individual processes in the production of products of animal origin on a previously defined plan
LO 29	Choose appropriate machines, devices and equipment in livestock production and use
LO 30	Identify and ensure ethological conditions and zootechnical procedures in livestock
LO 31	Organize the implementation of health protection and animal welfare assurance

Table 2.1.2. Agriculture (Professional Graduate Study Programme, 7<sup>th</sup> level, 1081, 3692)

Learning outcomes* of	LO												
the study programme	1	2	3	4	5	6	7	8	9	10	11	12	13
Total number of													
courses per learning	2	12	16	20	6	9	9	6	17	11	2	4	23
outcome													
Sustainable													
development in	+	+	+	+									+
agriculture													
Information													
technologies and												+	+
research in agriculture													
Production and use of													
fertilizers in sustainable			+	+	+	+		+	+				+
and organic agriculture													
Mechanisation in													
sustainable and organic		+		+		+	+						+
plant production													
Zootechnics			+	+			+		+	+			
Ecologically acceptable													
methods of plant		+		+		+		+	+				+
protection													
Soil protection		+	+	+					+				+
Selected chapters in				+	+		_		+	+			
animal nutririon							+			+			
Market and marketing													
of sustainable and											+	+	+
organic agriculture													
products													
Production of crops in													
sustainable and organic			+	+		+			+	+			+
agriculture													
Sustainable and organic													
cattle production of			+	+	+		+		+	+			+
meat and milk													

Sustainable vegetable													
production systems			+	+		+			+	+			+
Animal physiology and													
toxicology – selected			+	+			+		+				+
chapters													
Sustainable fruits and													
grape production		+	+	+	+	+		+	+	+			+
systems													
Organic pig and poultry													
raising		+	+	+			+		+	+			+
Soil analysis and													_
fertilization		+	+	+	+			+	+				+
Housing hygiene and													
welfare of farm animals		+	+	+			+		+	+			+
Sustainable and organic													
production of seeds and		+	+	+		+			+				+
planting material													
Quality assessment and													
bio-dynamics of animal				+	+		+	+					+
products													
Sustainable and organic													
approach to sheep and		+	+	+			+		+	+			+
goat raising													
Sustainable and organic													
production and fodder		+	+	+		+			+	+			+
technology													
Cultivation of medicinal													
and aromatic plants in		+	+	+		+		+	+	+			+
sustainable and organic		+		+		+		+	+	+			+
agriculture													
Ecotourism	+										+	+	+
Professional practical													+
training													
Elaboration and defense													
of final graduate												+	+
professional thesis													

### Agriculture (Professional Graduate Study Programme, 7th level, 1081, 3692)

\* Each programme learning outcome (LO) has a number/code which is assigned by the higher education institution. Please add this number/code to each learning outcome in the left column. Example legend of a list of LOs:

Learning outcome number	Learning outcome description
LO 1	Argumentatively discuss the economic and social role of sustainable/ecological agriculture
LO 2	Analyse the characteristics, position and importance of sustainable/ecological agriculture in relation to other management systems in agriculture
LO 3	Argumentatively discuss the role of sustainable/ecological agriculture in soil conservation, biodiversity conservation and adaptation to climate change
LO 4	Apply the principles of sustainable development in agricultural production
LO 5	Choose and apply methods of analysis of soil, materials of plant and animal origin and

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LO 6	To propose the technology of cultivation of agricultural crops according to						
LO 7	Propose appropriate methods and procedures in running a livestock farm according to						
LO 8	Recommend environmentally acceptable methods of protection and nutrition of						
LO 9	Apply legal regulations in the cultivation of plants and animals in						
LO 10	Create a transition plan from conventional to sustainable/ecological production						
LO 11	Analyse the market for ecological products and apply marketing strategies to increase						
LO 12	Design and conduct applied research in the field of agriculture						
LO 13	Present information, problems and solutions from the domain of sustainable/ecological						

Table 2.1.-3. Management in Agriculture (Professional graduate study programme, 7<sup>th</sup> level, 1088, 3694)

Learning outcomes* of the study programme	LO 1	LO 2	LO 3	LO 4	LO 5	LO 6	LO 7	LO 8	LO 9	LO 10	LO 11	LO 12
Total number of courses per learning												
outcome	22	9	11	2	14	3	6	12	5	22	9	22
Agricultural entrepreneurship	+	+	+		+		+		+	+		+
Business informatics	+		+	+	+		+	+		+	+	
Commercial law	+				+					+		
Book-keeping in agricultural enterpreneurship	+		+		+		+	+		+		+
Quantitative methods for management in agriculture	+	+			+					+	+	+
Management in agriculture	+	+			+	+				+	+	+
Marketing in agriculture	+	+		+	+				+	+		+
Project management	+		+		+			+		+	+	+
Economics of agricultural enterprise	+		+		+	+	+			+		+
Business finances	+	+					+	+		+		+
Destination management in rural tourism	+							+		+	+	+
Financial report analysis	+		+		+		+	+		+		+
Market research methods	+								+	+		+
Rural development projects	+							+	+		+	+
Agricultural economics	+				+			+	+			+
Business decision- making	+	+			+					++		
Quality management systems	+	+				+				+		+
Costs and calculations in cattle raising and plant production	+		+		+			+		+		+
Costs and calculations in vegetable production	+		+					+		+		+

Costs and calculations in fruit growing, viticulture and winemaking	+		+	+		+	+		+
Agriculture in the European Union	+	+				+	+		+
Business English language			+				+	+	+
Business German language			+				+	+	+
professional practical training	+	+					+		+
Elaboration of final graduate professional thesis								+	+

### Management in Agriculture (Professional graduate study programme, 7th level, 1088, 3694)

\* Each programme learning outcome (LO) has a number/code which is assigned by the higher education institution. Please add this number/code to each learning outcome in the left column. Example legend of a list of LOs:

Learning outcome	Learning outcome description
LO 1	Create the basis for making business decisions
LO 2	Create a strategic plan for the development of the agricultural economy
LO 3	Create a business plan for entrepreneurial ventures in agriculture
LO 4	Create a marketing plan for agricultural holdings
LO 5	Organize the implementation and supervision of the business function
LO 6	Manage quality in the operations of the agricultural economy
LO 7	To manage the capital of the agricultural economy
LO 8	Create projects in the field of agriculture and rural development
LO 9	Organize the implementation of market research for the purpose of making business
LO 10	Communicate effectively in business
LO 11	Apply information systems in business decision-making
LO 12	Integrate theoretical knowledge into the functioning of the business environment

Table 2.2. Table linking units of learning outcomes (LO) from the qualification standard with programme outcomes

N/A

#### ANNEX III.

### TABLES RELATED TO ASSESSMENT AREA III. STUDENT-CENTRED LEARNING AND TEACHING – TEACHING PROCESS AND STUDENT SUPPORT

Table 3.1. Number of students per study programme for evaluated academic year

Name of study programme	Type and level of study programme	Full-time students	Part-time students
Agriculture	Professional Undergraduate Study Programme, 6 <sup>th</sup> level	101	68
Agriculture	Professional Graduate Study Programme, 7 <sup>th</sup> level	26	31
Management in Agriculture	Professional Graduate Study Programme, 7 <sup>th</sup> level		16
Total*		127	**115+111
**There are 111 more students	with the right to graduate, we co	ount them as part-time stu	idents 242+111= <b>353</b>

<sup>\*</sup> For HEIs which deliver double-major programmes two values need to be provided:

- students taking double-major programmes are included twice,
- the total number of students at the HEI must be in brackets, and the number of students taking double-major programmes is multiplied by 0.5.

# Table 3.2. Structure of enrolled students and interest in first-cycle study programmes\* in the evaluated academic year and two academic years prior to that NOTE:

Data on structure of students refer only to students applying for, i.e. enrolling in study programmes via the State Matura system (*National Information System of Application to Higher Education Institutions - NISpVU*) and includes only first-time enrolments in the first year of studies (not students who are retaking the year).

Agriculture (Professional Undergraduate Study Programme, 6th level, 1031, 3666)

	,	Ful	l-time stu	idents	Pa	rt-time s	tudents	High school GPA		
	cademic ear	Applie d	Studen ts enrolle d	Enrolme nt quota	Applie d	Student s enrolle d	Enrolmen t quota	Score on compulsory part of State Matura exam**	Average grade	
20	23/24	81	13	120	44	15	60	51,42	3,87	
20	22/23	112	64	120	35	29	60	51,04	3,46	
20	21/22	89	70	120	31	28	60	54,44	3,51	

<sup>\*</sup>Includes integrated graduate programmes.

<sup>\*\*</sup>The State Matura score is expressed as the number of points achieved out of a maximum number of points, and is expressed as a percentage on a scale of 0 to 100%. The data are available in NISpVU.

Table 3.3. Structure of enrolled students and interest in graduate and postgraduate study programmes in the evaluated academic year and two academic years prior to that

Agriculture (Professional Graduate Study Programme, 7th level, 1081, 3692)

-	Fu	ll-time stud	lents	Pa	rt-time stu	dents		
Academic year	Applied	Student s enrolled	Enrolmen t quota	Applie d	Student s enrolled	Enrolmen t quota	Number of transfer students**	Average grade**
2023/24	11	11	30	6	6	30	-	3,33
2022/23	8	8	30	14	14	30	-	3,42
2021/22	7	7	30	15	15	30	-	3,53

Management in Agriculture (Professional graduate study programme, 7th level, 1088, 3694)

	Ful	ll-time stud	lents	Pa	rt-time stu	dents		
Academic year	Applied	Student s enrolled	Enrolmen t quota	Applie d	Student s enrolled	Enrolmen t quota	Number of transfer students**	Average grade**
2023/24	-	-	-	10	10	30	-	3,63
2022/23	-	-	ı	0	-	-	-	-
2021/22	-	-	-	10	10	30	-	3,88

<sup>\*</sup> Students who are re-taking the year are not included.

Table 3.4. Completion rate at the study programme

Agriculture (Professional Undergraduate Study Programme, 6<sup>th</sup> level, 1031, 3666)

Student cohort enrolled* in one generation**	Number of students enrolled in generation	Number of graduates of the same generation	Number of still active students of the same generation***	Number of students of the same generation who have unenrolled or have lost the right to study	Average duration of studies
2013./2014.	110	49	29	32	4,18
2014./2015.	120	39	29	52	4,08
2015./2016.	120	52	22	46	4,4
2016./2017.	118	37	38	43	4,3
2017./2018.	95	31	30	34	3,87
2018./2019.	36	5	20	11	4
2019./2020.	53	12	24	17	3,25
2020./2021.	64	0	44	20	-
2021./2022.	66	0	54	12	6
2022./2023.	58	0	46	12	-

<sup>\*\*</sup> Transfer students are those who have transferred from another HEI or another study programme at the same HEI.

<sup>\*\*\*</sup> This refers to the average grade achieved at the previous level of higher education.

#### Full-time students

Agriculture (Professional Undergraduate Study Programme, 6th level, 1031, 3666)

Student cohort enrolled* in one generation**	Number of students enrolled in generation	Number of graduates of the same generation	Number of still active students of the same generation***	Number of students of the same generation who have unenrolled or have lost the right to study	Average duration of studies
2013./2014.	57	23	22	12	5,05
2014./2015.	50	16	21	13	5,25
2015./2016.	47	12	22	13	5,58
2016./2017.	39	15	2	12	5,53
2017./2018.	23	8	10	5	4,25
2018./2019.	26	3	20	3	3
2019./2020.	23	0	19	4	-
2020./2021.	22	0	18	4	-
2021./2022.	33	0	32	1	-
2022./2023.	29	0	28	1	-

Part-time students

Agriculture (Professional Graduate Study Programme, 7th level, 1081, 3692)

Student cohort enrolled* in one generation**	Number of students enrolled in generation	Number of graduates of the same generation	Number of still active students of the same generation***	Number of students of the same generation who have unenrolled or have lost the right to study	Average duration of studies
2018./2019.	4	3	1	0	3
2019./2020.	10	8	2	0	3,13
2020./2021.	11	3	8	0	2.33
2021./2022.	8	0	8	0	0
2022./2023.	8	0	8	0	0

Full-time students

<sup>\*</sup> The cohort does not include transfer students from other HEIs or students who are re-taking the year.

<sup>\*\*</sup> Data must be included for all academic years, beginning with 2013/2014.

<sup>\*\*\*</sup> Also includes students whose status is suspended in accordance with Article 80 of the AHESA.

Agriculture (Professional Graduate Study Programme, 7<sup>th</sup> level, 1081, 3692)

Student cohort enrolled* in one generation**	Number of students enrolled in generation	Number of graduates of the same generation	Number of still active students of the same generation***	still active same generation who have unenrolled or	
2013./2014.	18	12	6	0	4,44
2014./2015.	17	11	6	0	4,54
2015./2016.	17	8	9	0	4,16
2016./2017.	13	4	8	1	5
2017./2018.	7	5	2	0	3,6
2018./2019.	10	1	9	0	4
2019./2020.	0	0	0	0	-
2020./2021.	2	0	2	0	-
2021./2022.	13	0	13	0	-
2022./2023.	14	0	14	0	-

Part-time students

Management in Agriculture (Professional graduate study programme, 7<sup>th</sup> level, 1088, 3694)

Student cohort enrolled* in one generation**	Number of students enrolled in generation	Number of graduates of the same generation	Number of still active students of the same generation***	Number of students of the same generation who have unenrolled or have lost the right to study	Average duration of studies
2013./2014.	8	4	4	0	4
2014./2015.	8	5	3	0	4,2
2015./2016.	7	3	4	0	4
2016./2017.	9	5	4	0	3,6
2017./2018.	4	4	0	0	3
2018./2019.	9	4	5	0	4
2019./2020.	5	3	2	0	3,33
2020./2021.	7	3	4	0	2,66
2021./2022.	10	0	10	0	0

Part-time students

Table 3.5. Total student mobility in the past five academic years

Type of mobility	Number of students involved in international exchange
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<sup>\*</sup> The cohort does not include transfer students from other HEIs or students who are re-taking the year.

<sup>\*\*</sup> Data must be included for all academic years, beginning with 2013/2014.

<sup>\*\*\*</sup> Also includes students whose status is suspended in accordance with Article 80 of the AHESA.

<sup>\*</sup> The cohort does not include transfer students from other HEIs or students who are re-taking the year.

<sup>\*\*</sup> Data must be included for all academic years, beginning with 2013/2014.

<sup>\*\*\*</sup> Also includes students whose status is suspended in accordance with Article 80 of the AHESA.

	up to 3 months	more than 3 months
Outgoing mobility	54	0
Incoming mobility	12	0

Table 3.6. Employment of graduates/alumni in the past 3 calendar years

Agriculture (Professional Undergraduate Study Programme, 6<sup>th</sup> level, 1031, 3666)

Year	Number of students who have completed the study programme	Data on unemployed persons who have completed the study programme*  Number Source			
N (2023)	35	21	CES		
N-1	27	22	CES		
N-2	68	14	CES		

<sup>\*</sup> The HEI may provide data obtained from the CES or other relevant sources (own records, relevant external records of other bodies, research findings, etc.).

Agriculture (Professional Graduate Study Programme, 7<sup>th</sup> level, 1081, 3692)

Year	Number of students who have completed the study	Data on unemployed persons who h completed the study programme			
	programme	Number	Source		
N (2023)	6	2	CES		
N-1	11	4	CES		
N-2	13	0	CES		

<sup>\*</sup> The HEI may provide data obtained from the CES or other relevant sources (own records, relevant external records of other bodies, research findings, etc.).

Management in Agriculture (Professional graduate study programme, 7<sup>th</sup> level, 1088, 3694)

Year	Number of students who have completed the study	Data on unemployed persons who have completed the study programme*			
	programme	Number	Source		
N (2023)	11	5	CES		
N-1	6	5	CES		
N-2	8	6	CES		

<sup>\*</sup> The HEI may provide data obtained from the CES or other relevant sources (own records, relevant external records of other bodies, research findings, etc.).

# TABLES RELATED TO ASSESSMENT AREA IV. TEACHING CAPACITIES AND INFRASTRUCTURE OF THE HIGHER EDUCATION INSTITUTION

Table 4.1.a Staff structure (UNIVERSITIES) in the evaluated academic year

Staff*	Full-time	e staff	Cumulat employm		External associates**		
	Number	Average age	Number	Average age	Number	Average age	
Full professors with tenure							
Full professors							
Associate professors							
Assistant professors							
Scientific advisors with tenure							
Scientific advisors							
Senior research associates							
Research associates							
Teaching positions							
Senior teaching assistants							
Teaching assistants							
Professional associates							
Project staff							
Professional library staff							
Technical staff							
Administrative staff							
Assistant staff							

<sup>\*</sup> Categories are pursuant to the AHESA and include staff whose employment status is suspended and staff who are on sabbatical.

<sup>\*\*</sup> Persons who are not HEI staff but take part in study programme delivery.

Table 4.1.b Staff structure (POLYTECHNICS/UNIVERSITIES OF APPLIED SCIENCES) in the evaluated academic year

Staff*	Full-time staff		Cumulativ	e employment	External associates**	
	Numb er	Average age	Number	Average age	Numb er	Averag e age
Professors of professional studies with tenure	13	62			2	64
Professors of professional studies	5	53			2	43
Senior lecturers	6	55			3	65
Lecturers	4	37			2	34
Language instructors						
Full professors with tenure						
Full professors						
Associate professors						
Assistant professors					1	40
Teaching assistants	3	28				
Professional associates	1	36				
Project staff						
Professional library staff	1	38				
Technical staff	9	44				
Administrative staff	8	48				
Assistant staff	5	51				

<sup>\*</sup> Categories are pursuant to the AHESA.

\*\* Persons who are not HEI staff but take part in study programme delivery.

Table 4.2. Teachers and associates\* at the HEI who are taking part in instructional delivery in the evaluated academic year

Teacher*	CroRIS link	Position/	Scientific	Scientific	Ratio of working hours at home institution (%)		Teaching load at home	Teaching load at external
Teacher	CIURIS IIIK	Title**	area	field	Teaching	Research	institution (contact hours)	institutions (contact hours)
Ph.D. Damir Alagić	https://www.croris.hr/osobe/profil/7556	Professor of professional studies with tenure	Biomedicine and healthcare	Veterinary medicine	67,5%	22,5%	225	-
Ph.D. Marcela Andreata- Koren	https://www.croris.hr/osobe/profil/10254	Professor of professional studies with tenure	Biotechnical sciences	Agronomy	67,5%	22,5%	272	-
Ph.D. Zvjezdana Augustinović	https://www.croris.hr/osobe/profil/4453	Professor of professional studies with tenure	Biotechnical sciences	Agronomy	67,5%	22,5%	295	-
Ph.D. Dražen Čuklić	https://www.croris.hr/osobe/profil/4743	Professor of professional studies with tenure	Biotechnical sciences	Agronomy	67,5%	22,5%	315	1
Ph.D. Renata Erhatić	https://www.croris.hr/osobe/profil/28103	Professor of professional studies with tenure	Biotechnical sciences	Agronomy	67,5%	22,5%	310	-
Ph.D. Dušanka Gajdić	https://www.croris.hr/osobe/profil/40584	Professors of professional studies	Social sciences	Economy	67,5%	22,5%	245	-
Ph.D. Matea Habuš	https://www.croris.hr/osobe/profil/34916	Lecturer	Biotechnical sciences	Food technology	67,5%	22,5%	97	-

Ph.D. Dijana Horvat	https://www.croris.hr/osobe/profil/34352	Professors of professional studies	Biotechnical sciences	Agronomy	67,5%	22,5%	144	-
Ph.D. Marijana Ivanek- Martinčić	https://www.croris.hr/osobe/profil/15250	Professors of professional studies	Biotechnical sciences	Agronomy	67,5%	22,5%	345	-
Marija Jakuš Hrestak, M.Eng.Agr.	https://www.croris.hr/osobe/profil/47313	Assistant	Biotechnical sciences	Agronomy	67,5%	22,5%	210	-
Ph.D. Tatjana Jelen	https://www.croris.hr/osobe/profil/4736	Professors of professional studies	Biotechnical sciences	Agronomy	67,5%	22,5%	355	-
Ph.D. Silvije Jerčinović	https://www.croris.hr/osobe/profil/27332	Professors of professional studies	Social sciences	Economy	67,5%	22,5%	365	-
Dragutin Kamenjak, M.Eng.Agr.	https://www.croris.hr/osobe/profil/10061	Senior lecturer	Biotechnical sciences	Agronomy	67,5%	22,5%	225	-
Ph.D. Sandra Kantar	https://www.croris.hr/osobe/profil/33217	Professor of professional studies	Social sciences	Sociology	67,5%	22,5%	299	-
M.Sc. Vlado Kušec	https://www.croris.hr/osobe/profil/26796	Senior lecturer	Biotechnical sciences	Agronomy	67,5%	22,5%	278	-
Ph.D. Ivka Kvaternjak	https://www.croris.hr/osobe/profil/30624	Professor of professional studies with tenure	Biotechnical sciences	Agronomy	67,5%	22,5%	335	-
Ph.D. Dejan Marenčić	https://www.croris.hr/osobe/profil/27338	Professor of professional studies with tenure	Biotechnical sciences	Agronomy	67,5%	22,5%	369	-

Goran Mikec, M.Eng.Agr.	https://www.croris.hr/osobe/profil/46612	Assistant	Biotechnical sciences	Agronomy	67,5%	22,5%	347	-
Ph.D. Valentina Papić Bogadi	https://www.croris.hr/osobe/profil/29425	Senior lecturer	Humanities	Philology	67,5%	22,5%	265	-
M.Sc. Tomislava Peremin Volf	https://www.croris.hr/osobe/profil/26785	Senior lecturer	Biotechnical sciences	Agronomy	67,5%	22,5%	362	-
Sonja Rajić- Bistrović, M.Eng.Chem	https://www.croris.hr/osobe/profil/47277	Lecturer	Natural sciences	Chemistry	67,5%	22,5%	113	-
Iva Rojnica, M.Eng.Agr.	https://www.croris.hr/osobe/profil/34144	Lecturer	Biotechnical sciences	Agronomy	67,5%	22,5%	185	-
Ph.D. Siniša Srečec	https://www.croris.hr/osobe/profil/10063	Professor of professional studies with tenure	Biotechnical sciences	Agronomy	67,5%	22,5%	241	-
M.Sc. Miomir Stojnović	https://www.croris.hr/osobe/profil/15130	Senior lecturer	Biotechnical sciences	Agronomy	67,5%	22,5%	240	-
Milan Suša, M.Eng.Agr.	https://www.croris.hr/osobe/profil/37997	Assistant	Biotechnical sciences	Agronomy	67,5%	22,5%	202	-
Ph.D. Kristina Svržnjak	https://www.croris.hr/osobe/profil/3222	Professor of professional studies with tenure	Biotechnical sciences	Agronomy	67,5%	22,5%	356	-
Iva Šikač, M.Eng.Agr.	https://www.croris.hr/osobe/profil/37996	Lecturer	Biotechnical sciences	Agronomy	67,5%	22,5%	270	-
Ph.D. Krunoslav Škrlec	https://www.croris.hr/osobe/profil/29424	Professor of professional studies with tenure	Social sciences	Economy	67,5%	22,5%	187	-

Ph.D. Andrija Špoljar	https://www.croris.hr/osobe/profil/12207	Professor of professional studies with tenure	Biotechnical sciences	Agronomy	67,5%	22,5%	319	-
Ph.D. Tatjana Tušek	https://www.croris.hr/osobe/profil/12044	Professor of professional studies with tenure	Biomedicine and healthcare	Veterinary medicine	67,5%	22,5%	337	-
Marijana Vrbančić Igrić, M.Eng.Agr.	https://www.croris.hr/osobe/profil/32703	Senior lecturer	Biotechnical sciences	Agronomy	67,5%	22,5%	306	-

<sup>\*</sup> Teachers and associates include all HEI staff who are taking part in instructional delivery regardless of their position (includes associate positions).

# Table 4.3. Teachers on study programmes in the evaluated academic year NOTES:

- The table includes HEI teachers and external associates in scientific-teaching/ artistic-teaching/ teaching positions
- All publication data refer to publications published in the last 5 years

Table 4.3.1. Teachers in the Professional Undergraduate Study Program in Agriculture during the Academic Year Evaluation

Teacher	CroRIS	Position/	Scientific	Scientific	Type of	Number	Number	Numbe	Numbe	Numbe	Number	Number	Number	Number
	link	Title 1	area	field	employm	of	of	r of	r of	r of	of	of	of other	of other
					ent	scientific	professio	books	books	books	competit	competit	projects	projects
						papers <sup>2</sup>	nal	author	edited <sup>5</sup>	transla	ive	ive	- project	- project
						in	papers <sup>3</sup>	ed <sup>4</sup>		ted <sup>6</sup>	projects	projects	leader	associate
						journals,	in				- project	- project		
						books	journals,				leader	associate		
						and	books							
						conferen	and							
						ce	conferen							

<sup>\*\*</sup> Scientific-teaching/ artistic-teaching/ teaching/ associate positions are included.

						proceedi ngs	ce proceedi ngs							
Damir Alagić	ww.crori	of Professio	Biomedic ine and Health	Veterinar y Medicine	nt	9	2	1	-	-	-	-	-	-
Marcela Andreata -Koren	ww.crori	Professor of Professio nal Studies in Permane nt Election	Biotechni cal Sciences	re	Permane nt Employm ent	6	-	-	-	-	-	1	-	-
Zvjezdan a Augustin ović	ww.crori	of Professio	Biotechni cal Sciences	re	Permane nt Employm ent	4	2	-	-	-	ı	ı	ı	-
	https://w ww.crori s.hr/osob	Senior Lecturer	Natural Sciences	Mathema tics	External Associate	2	2	-	-	-	-	-	-	-

	<u>e/profil/1</u> <u>0243</u>													
Dražen Čuklić	ww.crori	Professor of Professio nal Studies in Permane nt Election	cal	re	Permane nt Employm ent	2	-	-	-	-	-	1	-	-
Renata Erhatić	ww.crori	of	cal	re	Permane nt Employm ent	11	ı	1	ı	-		2	ı	-
Lidija Firšt Godek	https://w ww.crori s.hr/osob e/profil/1 5128	Lecturer	Biotechni cal Sciences	re	External Associate	1	1	ı	-	-	ı	-	1	-
Dušanka Gajdić	ww.crori	Professor of Professio nal Studies	Social Sciences	cs	Permane nt Employm ent	6	1	1	-	-	-	1	-	-
Matea Habuš	https://w ww.crori s.hr/osob	Lecturer	Biotechni cal Sciences	Food Technolo gy	Permane nt Employm ent	19	-	-	-	-	-	3	-	-

	e/profil/3 4916													
Dijana Horvat	ww.crori	Professor of Professio nal Studies	cal	re	Permane nt Employm ent	13	4	-	-	-	1	-	-	-
Marija Hrestak Jakuš	https://w ww.crori s.hr/osob e/profil/4 7313	Assistant	Biotechni cal Sciences	re	Fixed- Term Employm ent	1								
Tatjana Jelen	ww.crori	Professor of Professio nal Studies in Permane nt Election	cal	re	Permane nt Employm ent	11	-	1	-	-	-	1	-	-
Silvije Jerčinovi ć	ww.crori	Professor of Professio nal Studies	Social Sciences	Economi cs	Permane nt Employm ent	8	1	2	-	-	2	-	-	1
Dragutin Kamenja k	https://w ww.crori s.hr/osob e/profil/1 0061	Senior Lecturer	Biotechni cal Sciences	re	Permane nt Employm ent	4	-	1	-	-	-	1	1	-
Sandra Kantar	https://w ww.crori	Professor of	Social sciences	Sociolog y	Permane nt	17	2	2	-	-	2	-	-	-

	s.hr/osob e/profil/3 3217	professio nal studies			Employm ent									
Vlado Kušec	https://w ww.crori s.hr/osob e/profil/2 6796	Senior Lecturer	Biotechni cal Sciences	ral	Permane nt Employm ent	4	1	1	-	-	-	-	-	-
Ivka Kvaternja k	ww.crori s.hr/osob e/profil/3	Professor of Professio nal Studies in Permane nt Election	cal	re	Permane nt Employm ent	10	-	-	-	-	1	-	-	-
Goran Mikec	https://w ww.crori s.hr/osob e/profil/4 6612	Assistant	Biotechni cal Sciences	re	Fixed- Term Employm ent	2	1	1	ı	-	1	ı	1	-
Dejan Marenčić	ww.crori	Professor of Professio nal Studies in Permane nt Election	cal	re	Permane nt Employm ent	3	1	-	-	-	-	-	-	-
Ivanek-	ww.crori	Professor of Professio	cal	Agricultu re	Permane nt	3	3	ı	-	-	-	1	1	-

	<u>e/profil/1</u> <u>5250</u>	nal Studies			Employm ent									
Tomislav Ivanjko		Associate Professor		Informati on and Commun ication Sciences	External Associate	15	1	1	-	-	-	2	-	-
Vedran Nervo	https://w ww.crori s.hr/osob e/profil/3 2702	Lecturer	Biomedic ine and Health	Veterinar y Medicine	External Associate	4	2	1	ı	-	1	1	1	-
Valentina Papić Bogadi	https://w ww.crori s.hr/osob e/profil/2 9425	Senior Lecturer	Humaniti es		Permane nt Employm ent	6	-	1	1	-	ı	3	1	-
Sonja Rajić- Bistrović	https://w ww.crori s.hr/osob e/profil/4 7277	Lecturer	Biotechni cal Sciences	re	Permane nt Employm ent	ı	-	1	-	-	1	-	-	-
Iva Rojnica	https://w ww.crori s.hr/osob e/profil/3 4144	Lecturer	Biotechni cal Sciences	re	Permane nt Employm ent	17	1	-	-	-	-	2	-	-
Siniša Srečec	ww.crori	Professor of Professio nal Studies in	cal	re	Permane nt Employm ent	46	-	3	2	-	1	2	-	-

		Permane nt Election												
Miomir Stojnović	https://w ww.crori s.hr/osob e/profil/1 5130	Senior Lecturer	Biotechni cal Sciences	re	Permane nt Employm ent	5	3	1	1	1	1	•	1	-
Milan Suša	https://w ww.crori s.hr/osob e/profil/3 7997	Assistant	Biotechni cal Sciences	Agricultu re	Fixed- Term Employm ent	2	1	1	1	1	1	1	1	-
Kristina Svržnjak	ww.crori	of Professio	Biotechni cal Sciences	re	Permane nt Employm ent	10	1	1	1	-	-	3	1	-
Iva Šikač	https://w ww.crori s.hr/osob e/profil/3 7996	Lecturer	Biotechni cal Sciences	re	Permane nt Employm ent	4	-	·	-	-	-	1	-	-
Krunosla v Škrlec	ww.crori	Professor of Professio nal Studies in Permane	Social Sciences	Economi cs	Permane nt Employm ent	6	-	1	-	-	-	-	-	-

		nt Election												
Andrija Špoljar	ww.crori	Professor of Professio nal Studies in Permane nt Election	Biotechni cal Sciences	re	Permane nt Employm ent	13	-	1	-	-	-	1	6	-
Tatjana Tušek	ww.crori	Professor of Professio nal Studies in Permane nt Election	Biomedic ine and Health	у	Permane nt Employm ent	7	3	2	-		ı	_	-	-
	https://w ww.crori s.hr/osob e/profil/3 2703	Senior Lecturer	Biotechni cal Sciences	re	Permane nt Employm ent	7	1	1	-	-	-	-	-	2

<sup>&</sup>lt;sup>1</sup> Scientific-teaching/ artistic-teaching/ teaching/ associate positions are included.

<sup>&</sup>lt;sup>2</sup> Scientific papers in journals, books and conference proceedings include original scientific and review (scientific) papers/articles, preliminary communications, short communications and scientific letters published in journals, conference proceedings and books.

<sup>&</sup>lt;sup>3</sup> Professional papers in journals, books and conference proceedings include professional and review (professional) papers/articles published in journals, books and conference proceedings.

<sup>&</sup>lt;sup>4</sup> Authored books include scientific and professional author monographs, textbooks, dictionaries, manuals, lexicons, catalogues and atlases.

<sup>&</sup>lt;sup>5</sup> Edited books include edited scientific and professional monographs, textbooks, dictionaries, manuals, lexicons, yearbooks, catalogues and atlases.

Table 4.3.2. Teachers in the Professional Master's Study Program in Agriculture during the Academic Year Evaluation

Teacher	CroRIS	Position/	Scientific	Scientific	Type of	Number	Number	Numbe	Numbe	Numbe	Number	Number	Number	Number
	link	Title 1	area	field	employm	of	of	r of	r of	r of	of	of	of other	of other
					ent		professio	books	books	books	competit	competit	projects	projects
						papers <sup>2</sup>		author	edited <sup>5</sup>	transla	ive	ive	- project	- project
						in	papers <sup>3</sup>	ed <sup>4</sup>		ted <sup>6</sup>	projects	projects	leader	associate
						journals,					- project	<ul><li>project</li></ul>		
						books	journals,				leader	associate		
						and	books							
						conferen	and							
						ce	conferen							
						proceedi								
						ngs	proceedi							
							ngs							

<sup>&</sup>lt;sup>6</sup> Includes the number of published translations of scientific and professional monographs, textbooks, dictionaries, manuals, lexicons, catalogues and atlases.

Damir Alagić	ww.crori	Professor of Professio nal Studies in Permane nt Election	ine and	Veterinar y Medicine	nt	9	2	1	-	-	-	-	-	-
Marcela Andreata -Koren	ww.crori	Professor of Professio nal Studies in Permane nt Election	cal	re	Permane nt Employm ent	6	-	-	-	1	-	1	-	-
Zvjezdan a Augustin ović	ww.crori	Professor of Professio nal Studies in Permane nt Election	cal	re	Permane nt Employm ent	4	2	-	-	1	1	1	-	-
Dražen Čuklić	ww.crori	Professor of Professio nal Studies in Permane	cal	Agricultu re	Permane nt Employm ent	2	-	-	-	1	-	1	-	-

		nt Election												
Renata Erhatić	ww.crori	Professor of Professio nal Studies in Permane nt Election	cal	re	Permane nt Employm ent	11	-	1	-			2	-	-
Tatjana Jelen	ww.crori	Professor of Professio nal Studies in Permane nt Election	cal	re	Permane nt Employm ent	11	-	1	1	-	-	1	-	-
Silvije Jerčinovi ć	ww.crori	Professor of Professio nal Studies	Social Sciences	Economi cs	Permane nt Employm ent	8	1	2	ı	ı	2	1	1	1
Dragutin Kamenja k		Senior Lecturer	Biotechni cal Sciences	re	Permane nt Employm en	4	-	1	-	-	-	1	1	-
Sandra Kantar	ww.crori	Professor of professio	Social sciences	Sociolog y	Permane nt Employm ent	17	2	2	-	-	2	-	-	-

	<u>e/profil/3</u> <u>3217</u>	nal studies												
Vlado Kušec	https://w ww.crori s.hr/osob e/profil/2 6796	Senior Lecturer	Biotechni cal Sciences	re	Permane nt Employm en	4	1	1	-	-	-	-	-	-
Ivka Kvaternja k	ww.crori s.hr/osob e/profil/3	of Professio	Biotechni cal Sciences	re	Permane nt Employm ent	10	1	1	-	-	1	1	-	-
Dejan Marenčić	ww.crori s.hr/osob e/profil/2	Professor of Professio nal Studies in Permane nt Election	Biotechni cal Sciences	re	Permane nt Employm ent	3	1	1	-	-	ı	-	-	-
Ivanek-	ww.crori	Professor of Professio nal Studies	Biotechni cal Sciences	re	Permane nt Employm ent	3	3	-	-	-	-	1	-	-
Vesna Samobor	ww.crori	Professor of Professio nal	Biotechni cal Sciences	Agricultu re	External Associate	2	-	-	-	-	-	-	-	-

	<u>e/profil/1</u> <u>4217</u>	Studies in Permane nt Election												
Siniša Srečec	ww.crori	Professor of Professio nal Studies in Permane nt Election	Biotechni cal Sciences	re	Permane nt Employm ent	46	-	3	2	-	1	2	-	-
Miomir Stojnović	https://w ww.crori s.hr/osob e/profil/1 5130		Biotechni cal Sciences	re	Permane nt Employm ent	5	3	1	-	-	-	-	-	-
Brankica Svitlica	https://w ww.crori s.hr/osob e/profil/1 4749	Assistant Professor	Biotechni cal Sciences		External Associate	13	1	-	-	-	-	2	-	-
Kristina Svržnjak	ww.crori	of Professio	Biotechni cal Sciences	re	Permane nt Employm ent	10	1	1	-	-	-	3	-	-

Krunosla v Škrlec	ww.crori s.hr/osob e/profil/2 9424	Studies in Permane nt Election	Sciences		nt Employm ent	6	-	1	-	-	-	-	-	-
Andrija Špoljar	ww.crori	Professor of Professio nal Studies in Permane nt Election	Biotechni cal Sciences	re	Permane nt Employm ent	13	-	1	-	-		1	6	-
Tatjana Tušek	ww.crori	Professor of Professio nal Studies in Permane nt Election	Biomedic ine and Health	y	Permane nt Employm ent	7	3	2	-	-	-	-	-	-
Vrbančić Igrić	https://w ww.crori s.hr/osob e/profil/3 2703		Biotechni cal Sciences		Permane nt Employm ent		1	1	-	-	-	-	-	2

Scientific-teaching/ artistic-teaching/ teaching/ associate positions are included.

Table 4.3.3. Teachers in the Professional Master's Study Program in Agricultural Management during the Academic Year Evaluation

Teacher	CroRIS link	Position/ Title <sup>1</sup>	Scientific area		employm ent	of scientific papers <sup>2</sup> in journals,	papers <sup>3</sup> in journals, books and conferen	Numbe r of books author ed <sup>4</sup>	Numbe r of books edited <sup>5</sup>	r of	- project	of competit	of other projects - project	of other
Anton Devčić		Assistant Professor	Social Sciences	Economi cs	External Associate	12	2	-	-	,	-	2	-	-

<sup>&</sup>lt;sup>2</sup> Scientific papers in journals, books and conference proceedings include original scientific and review (scientific) papers/articles, preliminary communications, short communications and scientific letters published in journals, conference proceedings and books.

<sup>&</sup>lt;sup>3</sup> Professional papers in journals, books and conference proceedings include professional and review (professional) papers/articles published in journals, books and conference proceedings.

<sup>&</sup>lt;sup>4</sup> Authored books include scientific and professional author monographs, textbooks, dictionaries, manuals, lexicons, catalogues and atlases.

<sup>&</sup>lt;sup>5</sup> Edited books include edited scientific and professional monographs, textbooks, dictionaries, manuals, lexicons, yearbooks, catalogues and atlases.

<sup>&</sup>lt;sup>6</sup> Includes the number of published translations of scientific and professional monographs, textbooks, dictionaries, manuals, lexicons, catalogues and atlases.

Lidija Firšt Godek	https://w ww.crori s.hr/osob e/profil/1 5128	Senior Lecturer	Biotechni cal Sciences	Agricultu re	External Associate	1	-	-	-	-	-	-	-	-
Dušanka Gajdić	ww.crori	Professor of Professio nal Studies	Sciences	Economi cs	Permane nt Employm ent	6	1	1	-	-	-	1	-	-
Silvije Jerčinovi ć	https://w ww.crori s.hr/osob e/profil/2 7332	Professor of Professio nal Studies	Sciences	Economi cs	Permane nt Employm ent	8	1	2	-	-	2	-	-	1
Dominik Mišević	https://w ww.crori s.hr/osob e/profil/4 1180	Lecturer	Social Sciences	Law	External Associate	5	-	-	-	-	-	-	-	-
Valentina Papić Bogadi	https://w ww.crori s.hr/osob e/profil/2 9425	Senior Lecturer	es		nt Employm ent	6	-	-	-	-	-	3	-	-
Siniša Srečec	https://w ww.crori s.hr/osob e/profil/1 0063	Professor of Professio nal Studies in Permane nt Election	Biotechni cal Sciences	re	Permane nt Employm ent	46	-	3	2	-	1	2	-	-

Kristina Svržnjak	https://w ww.crori s.hr/osob e/profil/3 222	of Professio nal Studies	Biotechni cal Sciences	re	Permane nt Employm ent	10	1	1	-	-	-	3	-	-
Krunosla v Škrlec	WW crori	Professor of Professio nal Studies in Permane nt Election	Sciences	Economi	Permane nt Employm ent	6	-	1	-	-	-	-	-	-
Marko Šostar	https://w ww.crori s.hr/osob e/profil/3 2086	Professor		Economi cs	External Associate	19	-	-	-	-	-	1	-	-
Damir Vuk	https://w ww.crori s.hr/osob e/profil/1 1027	Lecturer	Sciences	Informati on and Commun ication Sciences	External Associate	-	-	-	-	-	-	-	-	-

<sup>&</sup>lt;sup>1</sup> Scientific-teaching/ artistic-teaching/ teaching/ associate positions are included.
<sup>2</sup> Scientific papers in journals, books and conference proceedings include original scientific and review (scientific) papers/articles, preliminary communications, short communications and scientific letters published in journals, conference proceedings and books.

<sup>&</sup>lt;sup>3</sup> Professional papers in journals, books and conference proceedings include professional and review (professional) papers/articles published in journals, books and conference proceedings.

<sup>&</sup>lt;sup>4</sup> Authored books include scientific and professional author monographs, textbooks, dictionaries, manuals, lexicons, catalogues and atlases.

<sup>&</sup>lt;sup>5</sup> Edited books include edited scientific and professional monographs, textbooks, dictionaries, manuals, lexicons, yearbooks, catalogues and atlases.
<sup>6</sup> Includes the number of published translations of scientific and professional monographs, textbooks, dictionaries, manuals, lexicons, catalogues and atlases.

Table 4.4. Total teacher and associate mobility in the past 5 academic years

Type of	Outgoing	mobility	Incoming	mobility
mobility	up to 3 months	3 months or more	do 3 mjeseca	up to 3 months
Scientific	-	-	-	-
Artistic	-	-	-	-
Teaching	72	-	56	-
Professional	-	-	-	-

Table 4.5. Premises

TYPE OF PREMISES	Number	Surface area (square)
Classrooms	12	641,5
Laboratories/practicums used for teaching	12	206,5
Work facilities	4	480
Other premises intended for teaching purposes	3	158
Total premises intended for teaching purposes		1486
Rooms for student activities (studying, projects, associations, student union, etc.)	5	350
Offices of teaching staff	28	420
Offices of professional services staff	3	82

Table 4.6. Capital equipment

Please provide data on the available capital equipment of the HEI with the purchase value exceeding EUR 26,540.00.

Name of instrument (piece of equipment)	Purchase value (EUR)	Year of purchase
Quality Control System of Lach-Ner Ltd.	39.485,04	2020.
Climate Chamber +Ru-ve Ltd.	38.628,14	2022.

<sup>\*</sup>For equipment purchased in kunas, the corresponding amount in euros is specified

Table 4.7. Library premises and resources

Please provide data on the library at the HEI, if there is one.

Criterion	Value
Total library premises area (in m2)	115
Total reading room premises, intended for use by library patrons (in m2)	20
Total number of seats in the library, intended for use by patrons	6
Availability of reading room premises to patrons (in hours per week)1	30
Availability of professional library staff to patrons (in hours per week)2	30
Number of full-time library staff holding the title of librarian or higher	1
professional title	
Number of other library staff	0

Total number of library staff	1
Total number of books	12574
Total number of textbook titles which are part of required readings	259
Total number of copies of textbooks which are part of required readings	1606
Total number of print journals in the library holdings	619 volumes
	8 current titles
Number of e-journals with full-text access whose subscriptions the HEI	0
funds with own resources or university resources	
Total number of e-journals to which staff and students have access 3	414
Number of bibliographic databases whose subscriptions the HEI funds	0
with own resources or university resources	
Total number of bibliographic databases to which staff and students have	76
access 4	

 $<sup>\</sup>overline{\phantom{a}}$ Number of hours per week during which library patrons may use the reading room premises.

Table 4.8. Financial evaluation for the last two calendar years

	INCOME	N-1 calendar year	N calendar year
1.	INCOME FROM THE STATE BUDGET		1.608.217,39
1.1	Staff pay	1.221.277,41	1.361.624,53
1.3.	External associate pay	0	0
1.4.	Croatian research projects	0	0
1.5.	International research projects	0	0
1.6.	International cooperation	0	0
1.7.	Organization of academic conferences	0	0
1.8.	Journal subscription fees	0	0
1.11.	Equipment	0	0
1.12.	Remainder – total	289.769,06	246.592,86
2.	INCOME FROM OTHER PUBLIC SOURCES	18.562,42	13.025,51
2.1.	Income and support from local government and self-government units	11.945,05	7.850
2.2.	Income and support from other institutions (such as the National Science Foundation)	6.617,37	5.175,51
2.3.	Remainder – total	0	0
3.	INTEREST INCOME	11,57	6,04
4.	OWN ACTIVITIES	445.407,03	767.509,78
<i>4.1.</i>	Tuition fees – university study programmes	0	0
4.1.1.	undergraduate level	0	0
4.1.2.	graduate level	0	0
4.1.3.	postgraduate level – specialist study programmes	0	0
4.1.4.	postgraduate level – doctoral study programmes	0	0
4.2.	Tuition fees – professional study programmes	0	0
4.2.1.	undergraduate level	0	0
4.2.2.	graduate level	0	0
4.3.	Projects	0	0

<sup>&</sup>lt;sup>2</sup>Number of hours per week during which professional library staff are available to patrons in the sense that they provide services and respond to queries.

<sup>&</sup>lt;sup>3</sup> Includes journals whose subscriptions the HEI funds with own resources or university resources, journals whose subscriptions are funded at the national level and to which HEI students and staff have access, and open access journals.

<sup>&</sup>lt;sup>4</sup>Includes bibliographic databases whose subscriptions the HEI funds with own resources or university resources, bibliographic databases whose subscriptions are funded at the national level and to which HEI students and staff have access, and open access bibliographic databases.

4.3.1.	Scientific projects	0	0
4.3.2.	Professional projects	129.008,97	409.279,46
4.4.	Rental income	723,23	409,49
4.5.	Remainder – total	315.674,83	185.363,82
5.	REGULATED INCOME	132.686,61	115.428,20
5.1.	Tuition (all programme levels and types)	132.686,61	115.428,20
5.2.	Enrolment fees	0	0
5.3.	Additional knowledge or skills assessment (e.g. if administered at enrolment)	0	0
5.4.	Publishing	0	0
5.5.	Charges for forms, certificates, etc.	0	0
5.6.	Remainder – total	0	0
6.	OTHER INCOME (NOT MENTIONED ABOVE)	0	0
A	TOTAL INCOME	2.107.714,10	2.504.186,92

		N-1	N
	EXPENSES	calendar	calendar
		year	year
1.	STAFF COSTS	1.388.853,49	1.536.550,74
1.1	Staff pay	1.153.013,13	1.262.128,02
1.2.	External associate pay	0	0
1.3.	Remainder – total	235.840,36	274.422,72
2.	MATERIAL AND ENERGY COSTS	191.054,20	163.405,39
2.1.	Office supplies and other material expenses	25.050,29	30.058,70
2.2.	Laboratory supplies	67.606,91	65.092,80
2.3.	Energy	81.515,60	56.912,42
2.4.	Material and spare parts for current and investment maintenance	12.550,70	8.149,41
2.5.	Small inventory	3.103,77	1.909,04
2.6.	Remainder – total	1.226,93	1.283,02
3.	SERVICE COSTS	262.584,61	175.001,82
3.1.	Telephone and postal costs, transport costs	13.898,36	18.116,84
3.2.	Current and investment maintenance services	37.437,09	29.453,61
3.3.	Information and promotion	10.728,28	9.520,55
3.4.	Utilities	6.216,03	8.915,25
3.5.	Leasing, rent	132,72	0
3.6.	Intellectual and personal services (temporary service contracts, fees)	133.654,72	72.772,04
3.7.	IT services	16.139,46	6.241,16
3.8.	Remainder – total	44.377,95	29.982,37
4.	NON-FINANCIAL ASSET COSTS	99.195,31	50.721,73
4.1.	Business facilities	0	0
4.2.	Computer equipment	0	9.290,61
4.3.	Laboratory equipment	57.538,79	4.606,25
4.4.	Office equipment	18.513,92	8.276,32
4.5.	Communication equipment	0	2.381,41
4.6.	Other equipment	7.857,15	0
4.7.	Reading materials (books, journals etc.)	6.172,65	366,88
4.8.	Investment in machinery, production facilities and other equipment	2.840,27	25.800,26

4.9.	Additional investment in buildings	0	0
4.10.	Remainder – total	6.272,53	0
5.	STAFF REIMBURSEMENT COSTS	99.389,67	96.233,31
5.1.	Business travel costs (including accommodation and travel costs)	14.238,22	17.110,19
5.2.	Training costs (including accommodation and transport costs)	13.782,21	7.844,93
5.3.	Remainder – total	71.369,24	71.278,19
6.	OTHER COSTS (NOT INCLUDED ABOVE)	135.162,81	309.004,49
6.1.	Insurance premiums	5.399,70	4.268,61
6.2.	Representation costs	4.370,13	1.438,24
6.3.	Membership fees	544,84	378,81
6.4.	Bank costs	1.471,25	1.756,41
6.5.	Interest	4.191,01	159,56
6.6.	Other financial costs	119.185,88	301.002,86
В	TOTAL EXPENSES	2.176.240,09	2.330.917,48

C	Bottom line carried over from the last year	600.841,26	533.038,50
	TOTAL BALANCE AS ON 31 DECEMBER (4.9.a A – 4.9.b B + C)	533.038,50	706.307,94

## TABLES RELATED TO ASSESSMENT AREA V - RESEARCH/ARTISTIC AND PROFESSIONAL ACTIVITY

Table 5.1. HEI bibliography (for the past 5 calendar years)

	Type of publication	Total number of publications <sup>1</sup>	Number of publications published in cooperation with other institutions in Croatia <sup>2</sup>	Number of publications resulting from international cooperation <sup>3</sup>	Number of open access publications <sup>4</sup>
JOURNAL PAPERS	Scientific papers published in journals indexed in the following Web of Science Core Collection (WoSCC)) citation indices: Science Citation Index – Expanded (SCI-EXP), Social Science Citation Index (SSCI) or the Arts and Humanities Citation Index (A&HCI) <sup>5</sup>	37	37	5	19
	Scientific papers published in journals indexed in the WoSCC Emerging Sources Citation Index (ESCI) <sup>6</sup>	2	2	1	1
	Scientific papers published in journals indexed in Scopus (not including those which are indexed in WoSCC) <sup>7</sup>	3	3	-	3
	Scientific papers published in journals indexed in EconLit or HeinOnline (not including those which are indexed in WoSCC and/or Scopus) <sup>8</sup>	-	-	-	-
	Scientific papers published in other journals <sup>9</sup>	11	11	-	11
	Scientific papers published in journals – TOTAL	53	53	6	34
	Professional papers published in journals indexed in the following WoSCC citation indices: SCI-EXP, SSCI or A&HCI <sup>10</sup>	-	-	-	-
	Professional papers published in journals indexed in the WoSCC citation index ESCI <sup>11</sup>	-	-	-	-
	Professional papers published in journals indexed in Scopus (not including those which are indexed in WoSCC) <sup>12</sup>	-	-	-	-

	Professional papers published in journals indexed in EconLit or HeinOnline (not including those which are indexed in WoSCC and/or Scopus) <sup>13</sup>	-	-	-	-
	Professional papers published in other journals <sup>14</sup>	9	-	-	9
	Professional papers published in journals – TOTAL	9	-	-	9
воок	Scientific book chapters <sup>15</sup>	20	7	8	20
CHAPTERS	Professional book chapters <sup>16</sup>	-	-	-	-
	Book chapters – TOTAL	20	7	8	20
CONFEREN	Scientific papers published in conference proceedings <sup>17</sup>	56	18	2	24
CE PROCEEDI	Professional papers published in conference proceedings <sup>18</sup>	-	-	-	-
NGS PAPERS	Papers published in conference proceedings – TOTAL	56	18	2	24
AUTHORE	Authored books published abroad <sup>19</sup>	-	-	-	-
D BOOKS	Authored books published in Croatia <sup>20</sup>	14	-	-	8
	Authored books - TOTAL	14	-	-	8
EDITED	Edited books published abroad <sup>21</sup>	1	-	1	1
BOOKS	Edited books published in Croatia <sup>22</sup>	1	1	-	1
	Edited books – TOTAL	2	1	1	2
	Translated books <sup>23</sup>	-	-	-	-

<sup>1.</sup> The term "publication" in this table refers to reviewed publications whose authors include at least one HEI staff member at the time the publication was produced (this author has a valid employment contract and/or is employed at the HEI as an external associate, working on the research described in the publication in question and using the HEI research infrastructure for this purpose). As a rule, the author's affiliation provided in the publication is with the HEI.

<sup>2. &</sup>quot;Publications published in cooperation with other institutions in Croatia" include only publications whose co-authors include at least person who is affiliated with another institution.

<sup>3. &</sup>quot;Publications resulting from international cooperation" include only publications whose co-authors include at least one person who is affiliated with an institution from outside of Croatia.

- 4. Open access is free, non-paywalled and unrestricted online access to digital scientific information, which allows users to read, store, share, search, retrieve and index said information and/or use it in any other lawful form. This is most commonly achieved by storing certain versions of publications in institutional repositories (Green OA) or publishing in journals which are immediately available as open access (Gold OA). In this context, free means permanently free from any restrictions and conditions regarding access and use. In other words, open access publications include all those which are immediately available online, free of charge, to anyone, without the need for authentication or the imposition of any time restrictions in order to access the full text of the publication.
- 5. Includes original scientific papers, review (scientific) papers, preliminary communications, short communications, case reports and scientific letters published in journals indexed in the following Web of Science Core Collection (WoSCC) citation indices: Science Citation Index Expanded (SCI-EXP), Social Science Citation Index (SSCI) or Arts and Humanities Citation Index (A&HCI).
- 6. Includes original scientific papers, review (scientific) papers, preliminary communications, short communications, case reports and scientific letters published in journals indexed in the WoSCC Emerging Sources Citation Index (ESCI).
- 7. Includes original scientific papers, review (scientific) papers, preliminary communications, short communications, case reports and scientific letters published in journals indexed in the Scopus bibliographic and citation database, not including those indexed in the WoSCC citation indices mentioned above.
- 8. Includes original scientific papers, review (scientific) papers, preliminary communications, short communications, case reports and scientific letters published in journals indexed in the EconLit or HeinOnline bibliographic databases, not including those indexed in the WoSCC citation indices mentioned above and/or in Scopus.
- 9. Includes original scientific papers, review (scientific) papers, preliminary communications, short communications, case reports and scientific letters published in journals which are not indexed in WoSCC citation indices, Scopus, EconLit or HeinOnline.
- 10. Includes professional and review (professional) papers published in journals indexed in the following WoSCC citation indices: SCI-EXP, SSCI or A&HCI.
- 11. Includes professional and review (professional) papers published in journals indexed in the WoSCC citation index ESCI.
- 12. Includes professional and review (professional) papers published in journals indexed in the Scopus bibliographic and citation database, not including those indexed in the WoSCC citation indices mentioned above.
- 13. Includes professional and review (professional) papers published in journals indexed in the EconLit or HeinOnline bibliographic databases, not including those indexed in the WoSCC citation indices mentioned above and/or in Scopus.
- 14. Includes professional and review (professional) papers published in journals which are not indexed in WoSCC, Scopus, EconLit or HeinOnline.
- 15. Includes original scientific papers, review (scientific) papers, case reports, preliminary communications and short communications published in edited books.
- *Includes professional and review (professional) papers published in edited books.*
- 17. Includes original scientific papers, review (scientific) papers, case reports, preliminary communications and short communications published in conference proceedings.
- 18. Includes professional and review (professional) papers published in conference proceedings.
- 19. Includes scientific and professional author monographs, textbooks, dictionaries, manuals, lexicons, catalogues and atlases published outside of Croatia.
- 20. Includes scientific and professional author monographs, textbooks, dictionaries, manuals, lexicons, catalogues and atlases published in Croatia.

- 21. Includes scientific and professional edited monographs, edited collections, conference proceedings, textbooks, dictionaries, manuals, lexicons, encyclopaedias, anthologies, yearbooks, catalogues and atlases published outside of Croatia.
- 22. Includes scientific and professional edited monographs, edited collections, conference proceedings, textbooks, dictionaries, manuals, lexicons, encyclopaedias, anthologies, yearbooks, catalogues and atlases published in Croatia.
- 23. Includes translations of scientific and professional monographs, textbooks, dictionaries, manuals, lexicons, catalogues, atlases and literary works.

Table 5.2. Highlighted HEI publications published in the last five years Please add references for 5–10% of what you judge to be the best publications your institution has produced in the last five years.

No.	Publication reference	Publication type*	Number of WoSCC citations	Number of Scopus citations
1.	Čukelj Mustač, N., Novotni, D., <b>Habuš, M.,</b> Drakula, S., Nanjara, Lj., Voučko, B., Benković, M., Ćurić, D. (2020) Storage stability, micronisation, and application of	Journal paper	34	41
	nutrient-dense fraction of proso millet bran in gluten- free bread. <i>Journal of Cereal Science</i> , 91, 102864, 7. doi: 10.1016/j.jcs.2019.102864			
2.	Bolarić, S., Dragojević Müller, I. Vokurka, A., Vitali Čepo, D., Ruščić, M., <b>Srečec, S.,</b> Kremer D. (2021) Morphological and molecular characterization of Croatian carob tree ( <i>Ceratonia siliqua</i> L.) germplasm. <i>Turkish Journal of Agriculture and Forestry</i> , 45, 6; 807-818. doi: 10.3906/tar-2107-24	Journal paper	18	18
3.	Habuš, M., Golubić, P., Vukušić Pavičić, T., Čukelj Mustač, N., Voučko, B., Herceg, Z., Ćurić, D., Novotni, D. (2021) Influence of Flour Type, Dough Acidity, Printing Temperature and Bran Pre-processing on Browning and 3D Printing Performance of Snacks. <i>Food and Bioprocess Technology</i> , 14, 1-15. doi: 10.1007/s11947-021-02732-w	Journal paper	16	19
4.	Habuš, M., Novotni, D., Gregov, M., Štifter, S., Čukelj Mustač, N., Voučko, B., Ćurić, D. (2021) Influence of particle size reduction and high-intensity ultrasound on polyphenol oxidase, phenolics and technological properties of wheat bran. <i>Journal of Food Processing and Preservation</i> , 45, 3; e15204, 12. doi: 10.1111/jfpp.15204	Journal paper	15	20
5.	Benković, M., Bosiljkov, T., Semić, A., Ježek, D., <b>Srečec, S</b> . (2019) Influence of Carob Flour and Carob Bean Gum on Rheological Properties of Cocoa and Carob Pastry Fillings. <i>Foods</i> , 8, 2; 66, 17. doi: 10.3390/foods8020066	Journal paper	11	11
6.	<b>Habuš, M.,</b> Mykolenko, S., Iveković, S., Pastor, K., Kojić, J., Drakula, S., Ćurić, D., Novotni, D. (2022) Bioprocessing of Wheat and Amaranth Bran for the Reduction of Fructan Levels and Application in 3D-Printed Snacks. <i>Foods</i> , 11, 1649, 15. doi: 10.3390/foods11111649	Journal paper	11	11
7.	Radoš, K., Benković, M., Čukelj Mustač, N., <b>Habuš, M</b> ., Voučko, B., Vukušić Pavičić, T., Ćurić, D., Ježek, D., Novotni, D. (2023) Powder properties, rheology and 3D printing quality of gluten-free blends. <i>Journal of Food Engineering</i> , 338, 111251, 10. doi: 10.1016/j.jfoodeng.2022.111251	Journal paper	11	10
8.	<b>Habuš, M</b> ., Novotni, D., Gregov, M., Čukelj Mustač, N., Voučko, B., Ćurić, D. (2021) High-intensity	Journal paper	9	12

		1		T
	ultrasound treatment for prolongation of wheat bran			
	oxidative stability. <i>LWT</i> , 151, 112110, 7. doi:			
	10.1016/j.lwt.2021.112110			
9.	Kremer, D., Zovko Končić, M., Kosalec, I., Košir,	Journal		
	I.J., Potočnik, T., Čerenak, A., Srečec, S., Dunkić, V.,	paper	9	10
	Vuko, E. (2021) Phytochemical Traits and Biological			
	Activity of <i>Eryngium amethystinum</i> and <i>E. alpinum</i>			
	(Apiaceae). Horticulturae, 7, 10; 364, 15. doi:			
	10.3390/horticulturae7100364			
10.	Gajdić, D., Kotzab, H., Petljak, K. (2022)	Journal		
	Collaboration, trust and performance in agri-food	paper	9	10
	supply chains: a bibliometric analysis. British Food	1		
	Journal, 125, 2; 752-778. doi: 10.1108/BFJ-07-2021-			
	0723			
11.	Dunkić, V., Nazlić, M., Ruščić, Mirko., Vuko, E.,	Journal		
	Akrap, K., Topić, S., Milović, M., Vuletić, N.,	paper	6	5
	Puizina, J., Jurišić Grubešić, R., Srečec, S., Kremer,			
	D. (2022)			
	Hydrodistillation and Microwave Extraction of			
	Volatile Compounds: Comparing Data for Twenty-			
	One <i>Veronica</i> Species from Different Habitats.			
	Plants, 11, 7; 902, 17. doi: 10.3390/plants11070902			
	Hanousek Čiča, K., Mrvčić, J., <b>Srečec, S.</b> , Filipan, K.,	Journal		
	Blažić, M., Stanzer, D. (2020) Physicochemical and	paper	5	10
	aromatic characterization of carob macerates	I I		
12.	produced by different maceration conditions. Food			
	Science & Nutrition, 8, 942-954. doi:			
	10.1002/fsn3.1374			
13.	Grdiša, M., Šatović, Z., Liber, Z., Jakše, J., Varga, F.,	Journal		
	Erhatić, R., Srečec, S. (2021)	paper	5	5
	High Genetic Diversity and Low Population	1 1		
	Differentiation in Wild Hop (Humulus lupulus L.)			
	from Croatia. Applied Sciences - Basel, 11, 14; 6484,			
	14. doi: 10.3390/app11146484			
14.	Gajdić, D., Mesić, Ž., Petljak, K. (2021) Preliminary	Journal		
	Research about Producers' Perceptions of	paper	4	4
	Relationship Quality with Retailers in the Supply	^ ^		
	Chain of Organic Food Products in Croatia.			
	Sustainability, 13, 24; 13673, 41. doi:			
	10.3390/su132413673			
15.	Repajić, M., Puškar, B., Dugalić, K., Vahčić, N.,	Journal		
	Srečec, S., Dragović-Uzelac, V., Jurković, Z., Levaj,	paper	3	4
	B. (2019)			
	Quality and Sensory Study of Fresh Sour Cherry			
	Juices upon Cultivar, Growing Area and Weather			
	Conditions. <i>Journal of Food Science</i> , 84, 11; 3264-			
	3274. doi: 10.1111/1750-3841.14822			
16.	Varga, F., Vidak, M., Ivanović, K., Lazarević, B.,	Journal		
	Širić, I., <b>Srečec, S.</b> , Šatović, Z., Carović- Stanko, K.	paper	3	4
	(2019)	<b></b>		
	How does Computer vision compare to standard			
	colorimeter in assessing the seed coat color of			
	common bean (Phaseolus vulgaris L.)?. Journal of			
	, , , , , , , , , , , , , , , , , , , ,		•	•

	Central European Agriculture, 20, 4; 1169-1178. doi: 10.5513/JCEA01/20.4.2509			
17.	Špoljarić, D., Marenčić, D., Benković, M., Špoljarić, B., Cvitanović Belščak, A., Mršić, G., Popović, M., Srečec, S., Stolić, I. (2019) Effect of dietary carob wholemeal on blood parameters in weaned pigs.	Journal paper	2	3
	Veterinarski arhiv, 89, 3; 351-366. doi: 10.24099/vet.arhiv.0314			
18.	Voučko, B., Novotni, D., Balbino, S., Čukelj Mustač, N., Drakula, S., Dujmić, F., <b>Habuš, M</b> ., Jarni, K., Ćurić, D. (2022) Utilization of pumpkin seed oilcake and proso millet flour in enhancing gluten free bread quality. <i>Journal of Food Processing and Preservation</i> , 46, 11; e17070, 9. doi: 10.1111/jfpp.17070	Journal paper	2	1
19.	Brunšek, R., Butorac, J., <b>Augustinović</b> , <b>Z.</b> , Pospišil, M., Effect of Nitrogen on the Properties of Flax ( <i>Linum usitatissimum</i> L.) Plants and Fibres. <i>Polymers</i> , 14 (2022), 3; 558, 10. doi: 10.3390/polym14030558	Journal paper	1	1
20.	Kremer, D., Košir, I.J., Potočnik, T., Rogulj, N., Načinović, K., Randić, M., <b>Srečec, S.</b> , Jurišić Grubešić, R. (2021) Phenolic compounds in two subspecies of <i>Drypis spinosa</i> L. (Caryophyllaceae) in Croatia. <i>Acta Botanica Croatica</i> , 80, 1; 43-47. doi: 10.37427/botcro-2020-015	Journal paper	1	1

<sup>\*</sup> Please add the type of publication: journal paper, book chapter, conference proceedings paper or book

Table 5.3. Open science implementation

OPEN SCIENCE POLICY						
Has the HEI adopted a document		YES				
regulating issues related to open science?	Year:					
If yes, please add the year of adoption	URL:					
and the link to the document.						
Which areas does the document cover		Open access to publications				
(tick all that apply).		Open access to graded theses				
		Open access to educational content				
		Managing research data				
		Managing research software				
		Evaluation of open science activities				
		y whereby it may ensure open access t				
publications and other results of HEI		•	YES	NO		
If yes, please add the URL of the institu	tional rep	pository.				
URL:						
OPEN ACCESS TO SCIENTIFIC AN		FESSIONAL PUBLICATIONS*	NUM			
Total number of published journal paper			3	1		
Number of published journal papers ava	ilable as	open access in the institutional repositor	у -	•		
Total number of published book chapters <sup>2</sup>						
Number of published book chapters ava	ilable as	open access in the institutional repositor	у -	-		
Total number of papers published in con	ference p	proceedings <sup>3</sup>	2	4		

Number of papers published in conference proceedings and available as open access in the	-
Total number of published authored books <sup>4</sup>	8
Number of published authored books available as open access in the institutional repository	5
Total number of published edited books <sup>5</sup>	2
Number of published edited books available as open access in the institutional repository of	-
MANAGING RESEARCH DATA	
Number of research data stored in the institutional repository of the HEI	-
Number of research data available as open access in the institutional repository of the HEI	-

<sup>\*</sup>All information on publications refers to those published in the last 5 years

- 1. Includes original scientific papers, review (scientific) papers, preliminary communications, short communications, case reports, scientific letters and review (professional) papers published in journals. This number is the sum of the total of scientific papers published in journals and the total of professional papers published in journals provided in Table 5.1.
- 2. Includes original scientific papers, review (scientific) papers, case reports, preliminary communications, short communications, professional papers and review (professional) papers published in edited books. This number is identical to the number of publications provided in Table 5.1. under the total number of book chapters.
- 3. Includes original scientific papers, review (scientific) papers, case reports, preliminary communications, short communications, professional papers and review (professional) papers published in conference proceedings. This number is identical to the number of publications provided in Table 5.1. under the total number of papers published in conference proceedings.
- 4. Includes scientific and professional author monographs, textbooks, dictionaries, manuals, lexicons, catalogues and atlases. This number is identical to the total number of authored books provided in Table 5.1.
- 5. Includes scientific and professional edited monographs, edited collections, conference proceedings, textbooks, dictionaries, manuals, lexicons, encyclopaedias, anthologies, yearbooks, catalogues and atlases. This number is identical to the total number of edited books provided in Table 5.1.

Table 5.4. Artist's bibliography (in the past five calendar years)

\*This table is intended for the use of HEIs which perform artistic activity.

ARTISTIC ACTIVITY	Total
Number of artworks defined as extraordinary achievements with international merit	
Number of artworks defined as extraordinary achievements with national merit	
Number of artworks premièred at artistic events with international merit	
Number of artworks premièred at artistic events with national merit	
Number of artworks premièred with reviews published	
Number of artworks premièred	
Authorship of books published outside of Croatia	
Authorship of books published in Croatia	

Table 5.5. Open access to graded theses defended in the last 5 calendar years by level and type of higher education

	NUMBER OF DEFENDED FINAL THESES					
Type and level of higher education	Total defended	Theses written in a foreign language (other than Croatian)	Theses stored in the institutional repository of the HEI	Theses available as open access in the institutional repository of the HEI*		
I. UNIVERSITY STUI	Y PROGRA	MMES				
Undergraduate studies						
Graduate studies**						
Specialist studies						
Doctoral studies						
TOTAL I.						
II. PROFESSIONAL S	TUDY PRO	GRAMMES				
Short-cycle studies			-	-		
Undergraduate studies			193	99		
Graduate studies			67	37		
TOTAL II.			260	136		
TOTAL I. and II.			260	136		

<sup>\*</sup>Theses available as open access in the institutional repository of the HEI include only theses stored and available as open access in the institutional repository of the HEI, which do not require login, do not have an imposed embargo period or otherwise require readers to request access to the theses.

<sup>\*\*</sup>Include university integrated undergraduate and graduate studies

Table 5.6. Projects in the past 5 calendar years

NOTE: Includes projects which have begun or ended in the past 5 years (EUR)

Project (title)	Project duratio n <sup>1</sup>	Project type <sup>2</sup>	Fundin g type <sup>3</sup>	Financi er	Progra mme/ca Il for project funding	Role of the HEI	Total amount intended for the HEI	Total project amount
EquiEdu	01.09.20 20 30.12.20 22.	Professi onal project	Competi tive project funding	Europea n Commis sion	Interreg V-A Hungary -Croatia Cross- Border Coopera tion Program	Project leader	168.520,00	296.989,00
EduAgri	01.09.20 20 30.12.20 22.	Professi onal project	Competi tive project funding	Europea n Commis sion	Interreg V-A Hungary -Croatia Cross- Border Coopera tion Program	Project partner	121.825,00	257.705,00
Gastroto p	1. 6. 2021 – 31.12.20 22	Professi onal project	Competi tive project funding	Europea n Commis sion	Interreg V-A Hungary -Croatia Cross- Border Coopera tion Program	Project leader	60.282,00	291.243,00
Pop up rural hub	19.3.201 8 18.3.202 0.	Professi onal project	Competi tive project funding	Europea n Social Fund, Govern ment of the Republi c of Croatia	Open call "Suppor t for the Develop ment of Partners hips between Civil Society Organiz ations and Higher Educatio n Instituti ons for	Project partner	19.322,58	158.583,68

					the Impleme ntation of Service-Learnin g Program s"			
SOFI	01.12.20 22 31.03.20 25.	Professi onal project	Competi tive project funding	Europea n Climate Initiativ e (EUKI)	Federal Ministry for Econom ic Affairs and Climate Action (BMWK ) German y	Project leader	94.927,00	327,174.72
CROVe S- PhyBA	11.01.20 21. - 10.05.20 25.	Scientifi c research	Competi tive project funding	Croatian Science Foundati on	HRZZ 2020-02	Project partner	Costs covered by the project leader/contr actor	155.949,29
ACTIV Esoil	22.12.20 20. – 21.12.20 24.	Scientifi c research	Competi tive project funding	Croatian Science Foundati on	HRZZ 2020-02	Project partner	Costs covered by the project leader/contr actor	169.752,47
TEUCLI C	7.7.2014 . – 24.5.201 9	Scientifi c research	Competi tive project funding	Croatian Science Foundati on	HRZZ 2013-11	Project leader	95.553,12	95.553,12
Podmjer a 10.2 for 2018	10.5.201 8- 31.12.20 18	cientific research	Competi tive project funding	APPRR R	Croatian Rural Develop ment Program	Project leader	46.840,53	46.840,53
Podmjer a 10.2 for 2019	18.11.20 19 31.12.20 19.	Scientifi c research	Competi tive project funding	APPRR R	Croatian Rural Develop ment Program	Project leader	92.086,43	92.086,43
Podmjer a 10.2 for 2020	28.07.20 20 31.12.20 20.	Scientifi c research	Competi tive project funding	APPRR R	Croatian Rural Develop ment Program	Project leader	83486,22	83486,22
Podmjer a 10.2 for 2022	02.06.20 22	Scientifi c research	Competi tive	APPRR R	Croatian Rural Develop	Project leader	93,85	93,85

	31.12.20 22.		project funding		ment Program			
Podmjer a 10.2 for 2023	23.06.20 23 31.12.20 23.	Scientifi c research	Competi tive project funding	APPRR R	Croatian Rural Develop ment Program	Project leader	32.112,50	32.112,50
Erasmus + mobility KA103/ 2019	1.6.2019  31.5.202 2.	Professi onal	Competi tive project funding	Agency for Mobility and EU Program mes	Erasmus + EU Mobility Program	Project leader	41.347,00	41.347,00
Erasmus + mobility KA107/ 2019	1.8.2019  31.7.202 2.	Professi onal	Competi tive project funding	Agency for Mobility and EU Program mes	Erasmus + EU Mobility Program	Project leader	75.600,00	75.600,00
Monitori ng the producti vity of Križevci Crested Hens	2019. – 2021.	Professi onal research	Non- competit ive project funding	Koprivn ica- Križevci County		Project leader	9.954,21	9.954,21
Conserv ation and Revitali zation of Traditio nal Fruit Species and Varietie s in Zagreb and Koprivn ica-Križevci Counties	2020. – 2023.	Professi onal research	Non- competit ive project funding	Koprivn ica- Križevci County		Project partner	6.636,15	15.000,00
Erasmus + mobility KA103/ 2020	1.6.2020  31.5.202 2.	Professi onal	Competi tive project funding	Agency for Mobility and EU Program mes	Erasmus + EU Mobility Program	Project leader	42.065,00	42.065,00
Erasmus + mobility KA107/ 2020	1.8.2020  31.7.202 2.	Professi onal	Competi tive project funding	Agency for Mobility and EU Program mes	Erasmus + EU Mobility Program	Project leader	26.290,00	26.290,00

Erasmus + mobility KA131/ 2021	1.9.2021  31.10.20 23.	Professi onal	Competi tive project funding	Agency for Mobility and EU Program mes	Erasmus + EU Mobility Program	Project leader	38.159,00	38.159,00
Erasmus + mobility KA131/ 2022	1.6.2022  31.7.202 4.	Professi onal	Competi tive project funding	Agency for Mobility and EU Program mes	Erasmus + EU Mobility Program	Project leader	43.476,00	43.476,00
Erasmus + mobility KA131/ 2023	1.6.2023  31.7.202 5.	Professi onal	Competi tive project funding	Agency for Mobility and EU Program mes	Erasmus + EU Mobility Program	Project leader	38.359,00	38.359,00
Erasmus + mobility KA171/ 2023	1.8.2023  31.07.20 26.	Professi onal	Competi tive project funding	Agency for Mobility and EU Program mes	Erasmus + EU Mobility Program	Project leader	58.510,00	58.510,00

Table 5.7. Work on conference organisation committees in the past 5 calendar years

Conference* (title)	Conference organised by	Year	Number of persons involved in conference organisation*	Number of participants ***
International Scientific- Professional Conference: Innovations and Agribusiness: Challenges until 2030	Croatian Agro- economic Society	2023	2	100
4th International professional-scientific conference for the development of rural tourism: "Holistic approach to the development of the Management and Tourism program"	Vimal Academy and Faculty of Economics Zagreb	2023.	2	100
58th Croatian and 18th International Symposium of Agronomists	Faculty of Agrobiotechnical Sciences Osijek, J. J. Strossmayer	2023.	1	>200

Beginning and end of the project (DD.MM.YYYY. - DD.MM.YYYY.).

Type of project according to the classification used by CroRIS – Croatian Research Information System.

Type of funding according to the classification used by CroRIS.

	University in Osijek			
16th International Congress / International meeting	and co-organizers  Croatian Agronomic Society and European Association of Seed Growers	2023.	2	< 100
International Scientific- Professional Conference: Innovations in Agribusiness: Climate Change and Sustainable Bioeconomy	Croatian Agro- economic Society	2022	2	100
3rd International professional-scientific conference for the development of rural tourism "Education as a key factor of sustainable and responsible development of the rural area"	Vimal Academy and Faculty of Economics Zagreb	2022.	3	<100
57th Croatian and 17th International Symposium of Agronomists	Faculty of Agrobiotechnical Sciences Osijek, J. J. Strossmayer University in Osijek and co-organizers	2022.	1	>200
15th International Congress / International meeting	Croatian Agronomic Society and European Association of Seed Growers	2022.	2	< 100
International Scientific- Professional Conference: Innovations and Agribusiness: Challenges until 2030	Croatian Agro- economic Society	2021	2	100
14th International Congress / International meeting	Croatian Agronomic Society and European Association of Seed Growers	2021.	2	< 100
2nd International professional-scientific conference for the development of rural tourism "Sustainable and responsible development of the rural area."	Vimal Academy and Faculty of Economics Zagreb	2021.	3	< 100
56th Croatian and 16th International Symposium of Agronomists	University of Zagreb, Faculty of	2021.	1	>200

	Agriculture and co- organizers			
International Scientific- Professional Conference: Innovations: A Guarantee for the Future of Agribusiness in Croatia	Croatian Agro- economic Society	2020	3	100
13th International Congress / International meeting	Croatian Agronomic Society and European Association of Seed Growers	2020.	2	< 100
55th Croatian and 15th International Symposium of Agronomists	University of Zagreb, Faculty of Agriculture and co- organizers	2020.	1	>100
13th International Scientific- Professional Conference: Agriculture in Nature and Environmental Protection, Osijek, Republic of Croatia	AGROGLAS, ISTRO, HDPOT	2020	1	70
1st International professional- scientific conference for the development of rural tourism "Sustainable and responsible development in rural tourism".	Vimal Academy and Faculty of Economics Zagreb	2020.	3	□ 100
International Scientific- Professional Conference: Innovations: A Guarantee for the Future of Agribusiness in Croatia	Croatian Agro- economic Society	2019	1	100
12 <sup>th</sup> International Scientific/Professional Conference: Agriculture in nature and enviroment protection, Osijek, Republic of Croatia,	AGROGLAS ISTRO HDPOT	2019	1	61
12th International Congress / International Meeting	Croatian Agronomy Society and European Seed Association	2019	2	< 100

<sup>\*</sup>Please add conferences of other institutions in whose organisation HEI staff have participated, as well as conferences organised by the HEI itself.

Table 5.8. Editorship in journals in the past 5 calendar years

Journal	Publisher,	Role of HEI staff	Bibliographic	Quartile (Q) of
	place	member	or citation	journal based
		(editor-in-chief/	databases in	on last available
		member of editorial	which the	impact factor
		board, etc.)	journal is	(IF) and/or

<sup>\*\*</sup>Refers to HEI staff who have participated on any conference organisation committee.

<sup>\*\*\*</sup>Refers to the total number of conference participants (actual or estimated).

			indexed and/or national categorisation	SCImago Journal and Country Rank (SJR)
Antioxidants	MDPI, Basel, Switzerland	1 employee: Member of Reviewer Board Member of MDPI	Web of Science Core Collection	Q1, IF=6.7
Frontiers in Plant Science	MEDIA SA, Lausanne, Switzerland	1 employee: Review Editor for Plant Breeding	Web of Science Core Collection, Current Contents Agriculture, Biology & Environmental Sciences	Q1, IF=5.3
Foods	MDPI, Basel, Switzerland	1 employee: Member of Reviewer Board Member of MDPI	Web of Science Core Collection, Current Contents Agriculture, Biology & Environmental Sciences	Q1, IF=5.1
Plants	MDPI, Basel, Switzerland	1 employee: Member of Reviewer Board Member of MDPI	Web of Science Core Collection, Current Contents Agriculture, Biology & Environmental Sciences	Q1, IF=4.4
Agriculture	MDPI, Basel, Switzerland	1 employee: Member of Reviewer Board Member of MDPI	Web of Science Core Collection, Current Contents Agriculture, Biology & Environmental Sciences	Q1, IF=3.5
Agronomy	MDPI, Basel, Switzerland	1 employee: Member of Reviewer Board Member of MDPI	Web of Science Core Collection, Current Contents Agriculture, Biology & Environmental Sciences	Q1, IF=3.7
Hosticulturae	MDPI, Basel, Switzerland	1 employee: Member of Reviewer Board Member of MDPI	Web of Science Core Collection, Current Contents Agriculture, Biology & Environmental Sciences	Q1, IF=3.1

Climate	MDPI, Basel, Switzerland	1 employee: Member of Reviewer Board Member of MDPI	Web of Science Core Collection, Current Contents Agriculture, Biology & Environmental Sciences	Q2, IF=3.3
Hmeljarski bilten/Hop Bulletin	Slovenian Institute of Hop Research and Brewing	1 employee: Member of the Editorial Board	EBSCO, CABi, COBISS	-
Agroeconomia Croatica	Croatian Agro- economic Society, Zagreb	1 employee: Member of the Editorial Board	CAB International, HRČAK – Portal of Scientific Journals of the Republic of Croatia, AgEcon Search, Google Scholar, WorldCat, and the National and University Library in Zagreb	•

Dean of Križevci University of Applied Sciences:

Ph.D. Marcela Andreata-Koren