agency for science and higher education

# REPORT
# OF THE EXPERT PANEL
# ON THE
# RE-ACCREDITATION OF
# Karlovac University of Applied Sciences

**Date of preliminary site visit: 26 January 2021**
**Date of on-line re-accreditation: 27-29 January 2021**

March 2021

**CONTENTS**

## INTRODUCTION

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

All public and private higher education institutions are subject to re-accreditation, which is conducted in five-year cycles by the Agency, in accordance with the Act on Quality Assurance in Science and Higher Education (Official Gazette 45/09) and subordinate regulations, and by following *Standards and Guidelines for Quality Assurance in the European Higher Education Area* (ESG) and good international practice in quality assurance of higher education and science.

The Agency's Accreditation Council appointed an independent Expert Panel for the evaluation of the Karlovac University of Applied Sciences.

Members of the Expert Panel:

- Kaci Bourdache, Senior lecturer, Laurea University of Applied Sciences, Republic of Finland, Panel chair,
- Tamara Jakovljević, Ph.D., Croatian Forest Research Institute, Republic of Croatia,
- Asst. Prof. Valentina Obradović, Ph.D., Polytechnic of Požega, Republic of Croatia,
- Prof. Eneken Titov, Ph.D., Estonian Entrepreneurship University of Applied Sciences, Republic of Estonia,
- Prof. Damir Vučina, Ph.D., Faculty of Electrical Engineering, Mechanical Engineering and Naval Architecture University of Split, Republic of Croatia,
- Marta Miš, student, VERN' Polytechnic, Republic of Croatia.

During the on-line re-accreditation, the Expert Panel held meetings with the following stakeholders:

- Management,
- Quality Assurance Committee and Office for Quality Assurance,
- Students,
- Heads of departments,
- Full-time teaching staff,

- External lecturers,
- Assistants,
- Head of the Office for International Cooperation and Projects,
- ECTS coordinator, Erasmus coordinator, student practice managers,
- Office for Career Guidance and Student Support,
- Representatives of Center for Support of Students with Disabilities,
- Alumni,
- Representatives of the business sector, potential employers,
- Heads of scientific and professional projects.

Croatian Expert Panel members went to a preliminary site visit on 26 January 2021 and had a tour of the laboratories, library, IT classrooms, student administration office and classrooms, and attended sample lectures, where they held a brief Q&A session with students.

During the preliminary site visit, the Expert Panel examined the available additional documents and study programme descriptions (learning outcomes).

The Expert Panel drafted this Report on the re-accreditation of Karlovac University of Applied Sciences on the basis of Karlovac University of Applied Sciences self-evaluation report, other relevant documents, preliminary site visit and online meetings.

The Report contains the following elements:

- Short description of the evaluated higher education institution,
- Brief analysis of the institutional advantages and disadvantages,
- List of institutional good practices,
- Analysis of each assessment area, recommendations for improvement and quality grade for each assessment area,
- Detailed analysis of each standard, recommendations for improvement and quality grade for each standard,
- Appendices (quality assessment summary by each assessment area and standard, and protocol),
- Summary.

In the analysis of the documentation, preliminary site visit to the Karlovac University of Applied Sciences, online meetings and writing of the Report, the Expert Panel was supported by:

- Maja Šegvić, coordinator, ASHE,
- Vladivoj Lisica, interpreter at the preliminary site visit and during online meetings, ASHE,
- Igor Opić, translator of the Report, ASHE.

On the basis of the re-accreditation procedure conducted, and with the prior opinion of the Accreditation Council, the Agency issues a following accreditation recommendation to the Minister for Higher Education and Science:

1. **issuance of a confirmation on compliance with the requirements** for performing the activities, or parts of the activities
2. **denial of license** for performing the activities, or parts of the activities
3. **issuance of a letter of expectation** with the deadline for resolving deficiencies of up to three years. A letter of expectation can include the suspension of student enrolment within a set period.

The accreditation recommendation also includes a quality grade of a higher education institution, and recommendations for quality improvement.

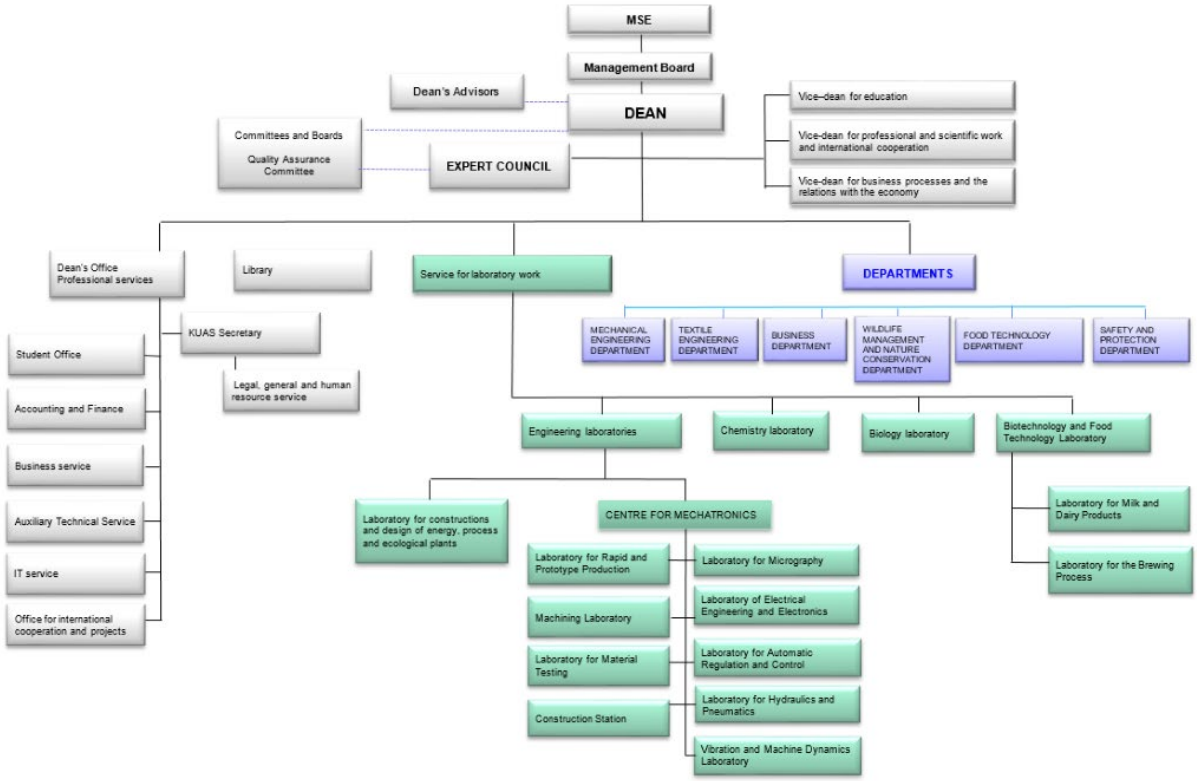
# SHORT DESCRIPTION OF THE EVALUATED HIGHER EDUCATION INSTITUTION

**NAME OF HIGHER EDUCATION INSTITUTION:** Karlovac University of Applied Sciences

**ADDRESS:** Trg J. J. Strossmayera 9, Karlovac

**DEAN:** Ph.D. Nina Popović, college professor

**ORGANISATIONAL STRUCTURE:**




**STUDY PROGRAMMES:**

**Professional undergraduate study programmes:**

- Mechanical Engineering
- Mechatronics
- Wildlife Management and Nature Conservation
- Safety and Protection
- Food Technology
- Hospitality Studies

**Specialist graduate professional study programmes:**

- Mechanical Engineering
- Business Administration
- Safety and Protection

The last enrolment of students in the first year of the professional undergraduate study of Textile Engineering was made in academic year 2013/2014, while the last student completed the studies during the academic year 2016/2017. Therefore, at the HEI's request based on the letter sent to the Agency for Science and Higher Education, the aforementioned programme was excluded from this re-accreditation procedure and the Mozvag analytics.

**NUMBER OF STUDENTS** (in academic year 2020/2021, data provided during the online-reaccreditation)**:**
**Full-time students:** 1286
**Part-time students:** 728

**NUMBER OF TEACHERS** (in academic year 2020/2021, data provided during the online-reaccreditation)**:**
**Full-time employed teachers:** 55,85
**Teaching assistants:** 2

**ENROLLMENT IN REGISTER OF SCIENTIFIC ORGANISATIONS:** Scientific field of Technical Sciences

**SHORT DESCRIPTION OF THE EVALUATED HIGHER EDUCATION INSTITUTION**

By Croatian Government Decree on 16 April 1997 Karlovac University of Applied Sciences was established with two departments: Mechanical Engineering Department in Karlovac and Textile Technology Department in Duga Resa. After a few years, Karlovac University of Applied Sciences received an accreditation for three more departments and permission for enrolling students in three more professional study programmes. So, at the beginning of academic year of 2000/2001, Food Technology Department (with study programmes of Food Technology and specialisations in Brewing and Dairy Technology), Wildlife Management and Nature Conservation Department (with study programme of Wildlife Management and Nature Conservation), and Safety and Protection Department (with specialisations of Occupational Safety and Fire Protection) started their work.
For the first time in the academic year 2003/2004 KUAS enrolled students in the professional undergraduate study of Hospitality Management, at the newly established Hospitality Management Department, which was renamed Business Department during the academic year 2005/2006.

Since academic year 2008/2009 a professional undergraduate study of Nursing which is organised by The Faculty of Health Studies in Rijeka in cooperation with KUAS is conducted at KUAS. In academic year 2012/2013 the Textile Study programme is put on hold, i.e. no students were enrolled in the 1st year of studies.
At KUAS, a total of 9 studies are currently being conducted (6 professional undergraduate and 3 specialist graduate professional studies) organized fully by KUAS and the professional study of Nursing organized by the Faculty of Health Studies, University of Rijeka in cooperation with KUAS.
At the end of 2003, KUAS became the owner of the main building at J. J. Strossmayer Square 9, by the donation of the Croatian Ministry of Defence. In 2006 dean's office, professional services, classes for the Departments of Safety and Protection and Textile Technology, which were previously situated in Duga Resa, moved to the newly equipped premises.
The building of teaching cabinets and laboratories was renovated, and the renovation of the first student dormitory in Karlovac was completed in 2016 and the dormitory was opened, with a capacity of 151 beds in 33 triple, 25 double and 2 single rooms. KUAS Student Centre moved to the location Frankopanska ulica no. 5. The building has been completely renovated and equipped, and has about 800m2 of usable area. It houses the premises of Student Centre the administration, the premises of the student service, the student council, the student sports organization, the Internet cafe, the student reading room and the exhibition space (gallery). In 2015, a building permit was obtained for the reconstruction KUAS main building, which enabled further development in terms of additional educational and scientific research capacities, and will be fully realized by completing the infrastructure project "Atrium of Knowledge" (co-funded by the European Fund for Regional Development) which began in June 2018. KUAS is registered in the Register of Scientific Organisations in the Scientific Field of Technical Sciences and employs teachers from 6 scientific fields.

## BRIEF ANALYSIS OF THE INSTITUTIONAL ADVANTAGES AND DISADVANTAGES

### ADVANTAGES OF THE INSTITUTION

1. Cooperation with the local community
2. Support to students from vulnerable and under-represented groups
3. Quality of external associates
4. Space, equipment and infrastructure for the delivery of the study programmes
5. Management of financial resources

### DISADVANTAGES OF THE INSTITUTION

1. Lack of internal quality assurance system
2. Teaching capacity, especially in relation to work hours
3. Some student support systems and support for foreign students
4. Inadequate ECTS allocation system
5. Lack of lifelong learning program(s)

## LIST OF INSTITUTIONAL GOOD PRACTICES

### EXAMPLES OF GOOD PRACTICE

1. Exemplary cooperation with the local community
2. Seeking opportunities to develop of teaching infrastructure
3. Transparent and meticulous financial reporting and use of finances
4. Support for students with disabilities and under-represented groups, especially Center for support and a Coordinating Body with outside representation
5. Quality control of external associates and taking advantage of their efforts and views in internal development

## ANALYSIS OF EACH ASSESSMENT AREA, RECOMMENDATIONS FOR IMPROVEMENT AND QUALITY GRADE FOR EACH ASSESSMENT AREA

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

Analysis

Quality assurance of Karlovac University of applied sciences has been established and it is based on several basic documents: *Development Strategy of KUAS 2016 - 2021, Quality policy, Quality Assessment Regulation of KUAS, Guidelines for Quality Assurance of KUAS and Internal Audit Procedure of KUAS*. Besides, KUAS has *Action Plan for the Development of the Quality Assurance System of KUAS 2019 – 2021.*, *Annual action plans and Annual Reports on the Implementation of the Action Plan for the Development of the Quality Assurance System of KUAS*. KUAS uses Integrated Guidelines for System Management and Quality Assurance in compliance with the Standards and Guidelines for Quality Assurance in European Higher Education Area and ISO 9001:2015 international norm. However, ISO 9001 certificate expired in 2020 and re-accreditation procedure hasn't been started yet. KUAS has not implemented in its system new documentation and procedures. Scientific strategy expired in 2018. and there is no Strategy for Quality assurance. There is no evidence about involvement of students and external stakeholders in the development of strategic documents. Based on the interviews with QA committee, responsibilities regarding documentation management are not clearly defined. It is unclear who is responsible for new documentation and its implementation.
There is no suitable underlying documentation which comprehends all stakeholders and/or improvements based on the gathered information and conducted analyses. Alumni are not officially included in work of any committee. There is no systematically documented feedback and data analysis from employers, finished students, alumni, external associates. Performance monitoring and the related rewarding of employees haven't been implemented yet. Recommendations for quality improvement from previous evaluations are partially implemented.

Ethical standards of KUAS are defined by *The Code of Ethics* which acts as the institutional normative act, followed by the *Rules of Procedure of the Ethics Committee*, *Ordinance on Disciplinary Responsibility of Teachers*, *Associates and Other Employees* and *Ordinance on Disciplinary Responsibility of Students*. Students are not aware of students' ombudsperson. KUAS has possibility for Turnitin software for plagiarism detection, but there is no formalized procedure and prove for its usage.

Information on study programmes and other activities of KUAS is publicly available in Croatian but information in English is very scarce on the official web page. Cooperation with different social partners is achieved through participation in different local public activities, and it is well reported through local print media and web portals. However, this

information is not available for international partners and potential students which is important for better international recognition of KUAS.

KUAS actively participates in different activities organised by City of Karlovac and Karlovac County. An active effort of KUAS to improve the quality of study and work for people with disabilities was recognized by the City of Karlovac and the KUAS was awarded with the "Blue Flower" award for promoting accessibility.
Improvement and continuous implementation of lifelong learning activities is one of the tasks of Strategic goal 1 of Development Strategy of KUAS 2016-2021, but there is no formal procedure for development and implementation of lifelong learning programmes.

Recommendations for improvement

- Responsibilities in QA system should be clearly defined. KUAS should name or hire a qualified person as Quality manager/Quality coordinator, because Office for QA should manage internal QA in a better manner. Take care about the expiration date of the documents and certificates. QA documentation should be revised, checked and additional surveys, reports should be implemented. Reconsider motives for ISO 9001 certification. Different stakeholders should be included in QA and all other activities of KUAS in formalized way.

- Formalize individual annual development plan for each employee and analyse the realization. Implement recommendations from the last external evaluation of KUAS's quality assurance system, especially regarding study programmes and student assessment. Modernize KUAS's web page, expand information in English.

- Formalize anti-plagiarism procedure, inform students about students' ombudsman. Expand promotional campaigns beyond local/regional level so KUAS can achieve better recognition on national and international level.

- Formalize procedure for development and revision of lifelong learning programmes. Include market analysis and external stakeholders' opinions. Implement programmes which have professional role, especially in the fields where KUAS has strong connections to industry and economy.

Quality grade

Minimum level of quality

## II. Study programmes

Analysis

KUAS has good relations with the labour market representatives, which helps to get information about industry needs and future developments, but the feedback and other input from the external environment is not used for the inner improvements in a

systematic way. KUAS's mission and vision and proper market analysis should give the direction both for existing and future study programmes.

The HEI has defined the study programme level learning outcomes, but high number and too detailed content of outcomes per programme doesn't allow to get clear overview of the programme and assess the coherence with the mission and goals of the HEI. The study programme level learning outcomes are vague and accordingly often not observable or measurable and indicate the lower levels of outcomes according to the EQF and LO taxonomies, which is not appropriate for the 6$^{th}$and 7$^{th}$level of the programmes. There could be more references and the latest research methodology implied in the literature lists of modules. Course content and the study methods should express latest achievements of the study field and enable student to achieve as modern knowledge and competencies as possible.

The delivering of the necessary learning outcomes is supported through the formal processes as creating and introducing the course syllabuses and course requirements for the students in the beginning of every course, launching and sticking to the study plan, academic calendar and examination dates. However, the achievement of intended LOs should be proved through assessment of the students and according to the feedback from the labour market – how well the graduates can cope with the work requirements and are prepared to work in learnt specialisation. The teachers have possibility to change their courses' syllabuses up to 20% per year, but according to the out-dated content of many syllabuses, not many teachers are using this option.

The analysis of the study programmes and allocation plans indicated several problems in understanding and implementing the requirements or ECTS allocation. Every department and study programme committee interprets the meaning of ECTS a little bit differently, which raises several problems in planning, implementing and assessing both students and teachers' workload. KUAS do not have tool for the teachers to help them to plan students work during the studies to achieve intended LOs and teachers are not supported to measure/assess efficiency of their teaching.

Practical learning KUAS have gained through laboratory practices, practical exercises in seminars, field work and student professional practice (internship). Student Internship is a part of every undergraduate study programme and varies from 7-20 credit points. According to the goals of study programmes, the internship is an important part in supporting the development of student professional skills and preparing them to be successful in the labour market. At the same time the organisation of internship from the KUAS side, do not allow all the students to get quality practice experience. Lack of proper documentation (incl. clear goals and tasks for internship) and just occasional communication with the company side supervisors, constant exchange of student practice managers and too short internship do not show the valuation of the students' internship.

Recommendations for improvement

- The updating and review of existing study programmes according to the changes in external environment incl. labour market needs, changes in local, regional or

national level strategies, latest trends, achievements and modern principles in the industries.

- Update the syllabuses and study materials to raise the level and quality of the studies. Raise the level of learning outcomes to be in accordance with the requirements of the CroQF and EQF 6thand 7thlevel.
- Reduce the amount of Study programme level learning outcomes according to the most important competencies which students need to achieve during the studies.
- Collect systematically feedback from different external stakeholders for the Study Programme Committee to discuss and use for improvements in study programme if necessary. Collect the systematic feedback from the employers about the competence level of the graduates and improving the studies and study programmes according to this.
- Unify the requirements for ECTS allocation amongst different academic departments and set up the central rules how many contact hours one ECTS can/should consist of (can be given as the interval) and calculate the student workload not according to the contact hours, but according to the student real and total average workload.

Quality grade

Satisfactory level of quality

## III. Teaching process and student support

Analysis

KUAS has the admission or continuation of studies criteria published and consistently applied. In conjunction of a transfer prior studies are properly recognised; any other form of prior learning is not recognised at all. KUAS collects and monitors data on the progress of students in their studies.

Information gathered and analysed on student progress should be used to ensure continuity and higher percentage of completion of study. The panel concurs with KUAS in their own reported conclusion that “a worrying fact is the number of students who do not complete their studies”. Earlier knowledge requirements in mathematics, chemistry, and physics have proven to cause problems.

Teaching at KUAS consists of “lectures, seminars, practice, laboratory practice, field work, practical instruction, projects, consultations, mentoring and professional practice”. There was little in-depth information available on this and the application of different studying methods as well as student-centred learning. Teachers were often described as

committed to aiding the students, but in some instances studying consists too much of straight lectures, described even as “uninteresting”. Feedback on studying methods does not tend to lead to changes on an adequate level and there is a feeling that giving feedback as a student was not useful.

KUAS has only one person working in the library. There is support for mobility as well as legal and psychological counselling available. Guidance in career matters is dependent on personal mentoring and unofficial discussions with lecturers which is not recommended. Equal access to education and all infrastructural facilities at KUAS is enabled to students and other persons with learning difficulties, disabilities and reduced mobility. Students with disabilities also have a Center for support and a Coordinating Body of the Centre set up and adjustments for them can be made.

Student mobility at KUAS is achieved through ERASMUS+ programme. Students are informed about these opportunities at the beginning of their academic year. KUAS provides good support to students in applying for and carrying out exchange programmes. KUAS has implemented guest lectures in English, the use of foreign literature and opportunity of writing professional and scientific papers in English to gain competencies required for employment in an international environment. There is a low rate of outgoing students which could be improved by KUAS. Support for incoming students is primarily provided by the Erasmus coordinator. Foreign students have an opportunity to attend classes delivered in English language. Due to a small number of foreign students, such classes were held in the form of consultative classes. KUAS does not collect feedback on satisfaction and needs of foreign students due to the shortage of incoming student mobility. The KUAS web page is not user-friendly to foreign students, due to the fact that it is almost entirely on Croatian language.

The criteria and methods for evaluation and grading are clear, published beforehand and introduced to at the introductory lecture. Most of the students thought majority of their professors are objective and consistent in implementation of assessment and grading, though exceptions were mentioned.

Student surveys where teachers are assigned are not completely anonymous (e.g. written by hand) and this can lead to withholding crucial feedback. Students do receive feedback on the evaluation results and have the right to see the exam, where they can also get advice to address learning outcomes of a certain courses. KUAS does provide support to the assessors in skills related to the testing and assessment, but should consider increasing the number of these.

KUAS provides very good support for certain groups of students regarding examination procedures to suit those groups. KUAS issues its students a Certificate of study completion upon study completion, and a Study Supplement in Croatian and English language. The Study Supplement is prepared in accordance with the Ordinance on the Content of Diplomas and Supplementary Study Documents.

KUAS analyses the employability of their graduates by keeping track and analysing statistical reports created by the Croatian Employment Service on the number of unemployed students. KUAS aligns admission quotas with labour and social market needs by analysing the document called "Recommendations for educational enrolment policy and scholarship policy" which is published by CES, once a year.

Prospective students are informed about the opportunities to continue education and find employment after graduation. KUAS does not offer support regarding future career planning but should implement one in their near future. KUAS is very good at maintaining contacts with both groups but contacts with alumni and employers are maintained by individual contact.

Recommendations for improvement

- Creation of recognition of prior learning policy where students may demonstrate their competence
- Formalizing starting level tests in all undergraduate programs on problematic topics (mathematics, chemistry, physics).
- A questionnaire to collect feedback from those dropping out from study programmes
- Set up policies so that feedback from students always loops back to them
- Consider methods, such as internal seminars or events and a database to spread good teaching practices among the lecturers across all study programmes.
- Implement a systematic method of collecting data about student satisfaction with the quality of KUAS support with practical matters of student mobility
- Creating a web page that is user-friendly for foreign students
- Implement methods that would focus on attracting more foreign students to KUAS and rising the rate of incoming student mobility
- Implement a systematic method of collecting feedback on satisfaction and needs of foreign students

- Ensuring more educational programmes for those who assess students regarding their development of skills related to the testing and assessment methods.
- Allow complete anonymity when assessing teacher's objectivity and reliability of grading.
- Implement systematic methods of maintaining contact with alumni and employers
- Implement a “Career development support service”

Quality grade

Satisfactory level of quality

**IV. Teaching and institutional capacities**

Analysis

The number of the full-time teachers performing lectures and the ratio between students and teachers are adequate. However, some teachers have a too high overall workload. There is also obvious imbalance between teaching related work and scientific activities, professional and personal development and administrative duties of the Faculty teachers.

External associates are qualified to for the courses they teach. They provide added value to the KUAS teaching process.

The teacher appointment procedure is prescribed by legislations and internal acts. The vacancies are properly advertised. The selection and the promotion of the teacher in higher grade are prescribed by the national minimum conditions for the area of technical, biotechnical and social sciences. Systematic and transparent rewarding system of excellence and internal competitive criteria are not in use.

The KUAS provides opportunities for improvement of teaching competences by using the opportunity for international networking and mobility, which are primarily realized through the Erasmus + mobility programme. Teachers have participated in international and national conferences and workshops, but they have not used mobility programs and sabbatical.

KUAS` s entire infrastructure is appropriate and satisfactory for the implementation of study programs and the research and professional activities. Further development is in line with the strategic goals.

The Library has the available literature and online access to publication resources is provided mostly by National and University Library in Zagreb and Ministry of Science and Education. Nevertheless, students are not completely satisfied with their library resources. Space and equipment meet the conditions for a high quality of study activities.

Recommendations for improvement

- Teacher's too high workload should be reduced ensured sufficient balance between teaching related work, and scientific activities, professional and personal development and administrative duties.

- Additional, excellence rewarding criteria for the promotion of the teachers should be developed.

- Teachers and teaching assistants should use the opportunity of mobility programs.

Quality grade

Satisfactory level of quality

## V. Professional and/or scientific activity

Analysis

Being a university of applied sciences, KUAS has historically been focused more on teaching and professional activities than science, nevertheless, the activity benchmarks in science have also been growing in the recent periods. KUAS does support such a development by a number of active measures.

The number and impact of scientific publications could be increased given the size and areas of competence of KUAS and the fact that KUAS is registered in the Register of Scientific Organisations in the Scientific Field of Technical Sciences. This is recognized by KUAS and this aspiration is also stressed in the Development Strategy of the University of Applied Sciences in Karlovac. There also seems to be additional potential also for professional activities with regional companies.

Recommendations for improvement

- The strategy for enhancing scientific and professional work accompanied by well specified action plans should be implemented and monitored. It should also indicate key development areas such that equipment and staff can be focused in a sustainable way towards recognized excellence in those areas, having an impact both in research and teaching. It should specify the current (reference) as-is performance indicators, to-be target values, structured quantitative benchmarks, milestone definitions, responsibilities for monitoring, feedback-based corrective actions.

- The teaching staff reward system could be further enhanced towards promoting high-impact scientific publications. The teaching load should be reduced to standard values. Promising groups with potential for advanced scientific and professional activities in the key development areas of KUAS should perhaps be given certain priority in acquiring equipment from own funds.
- Joint projects and other forms of cooperation with local and regional companies should be stimulated and rewarded additionally. The economic council should be made operational to improve and facilitate professional cooperation with regional companies.

Quality grade

Satisfactory level of quality

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

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

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

Analysis

According to self-evaluation report, quality assurance system of Karlovac University of applied sciences (KUAS) has been established and it is based on several basic documents: *Development Strategy of KUAS 2016 - 2021, Quality policy, Quality Assessment Regulation of KUAS, Guidelines for Quality Assurance of KUAS and Internal Audit Procedure of KUAS*. Besides, KUAS has *Action Plan for the Development of the Quality Assurance System of KUAS 2019 – 2021.*, *Annual action plans and Annual Reports on the Implementation of the Action Plan for the Development of the Quality Assurance System of KUAS*. KUAS uses Integrated Guidelines for System Management and Quality Assurance (QA) in compliance with the Standards and Guidelines for Quality Assurance in European Higher Education Area and ISO 9001:2015 international norm. However, ISO 9001 certificate expired in 2020 and re-accreditation procedure hasn't been started yet. KUAS has not implemented in its system new documentation and procedures. Scientific strategy expired in 2018. and there is no Strategy for Quality assurance. Development Strategy of KUAS 2016 – 2021 has 7 strategic goals, but none of them explicitly states a quality assurance system although underdeveloped QA system is marked in SWOT analysis as one of the weaknesses. Action Plan for the Development of the Quality Assurance System of KUAS 2019 – 2021. presents correlation between ESG standards 1.1 – 1.10 and Strategic goals. ESG standard 1.1. is not directly correlated with the strategic goals. There is no evidence about involvement of students and external stakeholders in the development of strategic documents. Based on the interviews with QA committee, responsibilities regarding documentation management are not clearly defined. There is no Quality manager or Quality coordinator. It is unclear who is responsible for new documentation and its implementation.

Furthermore, based on the interviews with Quality assurance committee and other stakeholders, as well checking the available surveys, reports and actions, it can be seen that the whole plan-do-check-act circle is not closed in many cases. For example, running study programmes (except mechatronics) haven't been thoroughly analysed for many years. There is no suitable underlying documentation which comprehends all stakeholders and/or improvements (revisions) based on the gathered information and conducted analyses. The establishment of an economic council has been in Action plans every year since 2016. but it still doesn't function. External stakeholders are included in work of Committees for study programs, but on the other hand Committee for internal assessment of QA does not have external member. Alumni are not officially included in

work of any committee, based on the list of Committees provided as additional documentation.

Based on available data it cannot be said that KUAS systematically collects and analyses data on its processes, resources and results, and uses them to effectively manage and improve its activities, as well as for further development. This element is full field only partially since there is no systematically documented feedback and data analysis from employers, finished students, alumni, external associates. Students expressed dissatisfaction about student survey in paper form, and some of them expressed doubts about the anonymity of the survey.
Different workshops and seminars are available for employees of KUAS, although performance monitoring and the related rewarding of employees haven't been implemented yet.

Recommendations for improvement

- Responsibilities in QA system should be clearly defined.
- KUAS should name or hire a qualified person as Quality manager/Quality coordinator.
- If necessary, additional education about QA systems should be provided.
- QA documentation should be revised, checked and additional surveys, reports should be implemented. Special care should be dedicate to the expiration date of the documents and certificates. Reconsider motives for ISO 9001 certification.
- Different stakeholders should be included in QA and all other activities of KUAS in formalized way.

Quality grade
Minimum level of quality

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

Analysis
External evaluation of KUAS's quality assurance system made by ASHE in accordance with European standards and quality guidelines in higher education was done in 2015, and final report based on follow up period was issued in 2016. Recommendations from the final report have been partially implemented, especially recommendations for ESG standards 1.2 (design and approval of programmes), 1.3 (student-Centred learning, teaching and assessment), 1.6 (Information management), 1.7 (Publicly available information). Reaccreditation of KUAS was done in 2014, and Expert panel gave 9 main recommendations. Some of them were very successfully implemented like

modernization of library, on line materials, enrolment of students with only 3-years of secondary education.

On the other hand, recommendation for development of plan of strategic research hasn't been implemented since the expiration of the old scientific strategy in 2018, and new one hasn't been issued yet. A personnel development program is not formalized and standardized. Activities for student mobility cannot be considered as suitable and appropriate based on the fact that the number of mobilities per year is low and actually decreasing since 2016. (Table 3.6.1. page 62 of the self-evaluation report). According to self-evaluation report the number of external teachers was reduced from 69 in 2017. to 61 in 2019. but the trend is still relatively low, especially considering the fact that the number of full-time teachers increased from 59 to 61 in the same period.

Recommendations for improvement

- Formalize individual annual development plan for each employee and analyse the realization.
- Implement recommendations from the last external evaluation of KUAS's quality assurance system, especially regarding study programmes and student assessment.
- Modernize KUAS's web page, expand information in English.
- Cooperation and feedback from external stakeholders should be formalized.
- Introduce more efficient data collection from different stakeholders, analyse and follow-up activities based on the obtained data.

Quality grade

Satisfactory level of quality

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

Analysis

Ethical standards of KUAS are defined by *The Code of Ethics* which acts as the institutional normative act, followed by *the Rules of Procedure of the Ethics Committee*, *Ordinance on Disciplinary Responsibility of Teachers*, *Associates and Other Employees* and *Ordinance on Disciplinary Responsibility of Students*. According to the interview with the management, disciplinary procedures are rare. Based on the evidence provided in the self-evaluation report and additional documentation, procedures against students and staff are functional, transparent and objective. There is a student ombudsperson at KUAS with the task of resolving issues of academic relations and protection of academic rights and

freedom of students, but students are not aware of that possibility and do not know who that person is. KUAS has possibility for Turnitin software for plagiarism detection, but there is no formalized procedure and prove for its usage.

Recommendations for improvement

- Formalize anti-plagiarism procedure
- Inform students about students' ombudsman.

Quality grade

Satisfactory level of quality

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

Analysis

Information on study programmes and other activities of KUAS is publicly available in Croatian on the official web page, but information in English is very scarce. KUAS web page provides only a list of courses available in English, but it is very hard to find it for non-Croatian speakers since only some titles are translated in English. Information about admission criteria, enrolment quotas, study programmes and learning outcomes are available on the web page. Besides, students can find information about mentorship programme (although students are not using it in practice) and information about support for students with disabilities.

Cooperation with different social partners is achieved through participation in different local public activities (self-evaluation report, page 20-21), and it is well reported through local print media and web portals. However, this information is not available for international partners and potential students which is important for better international recognition of KUAS.

KUAS also prepares annual reports on the entire work and activities, as well as financial reports that are publicly available on the official website.

Recommendations for improvement

- Modernize web page in Croatian and provide complete English version.
- Expand promotional campaigns beyond local/regional level so KUAS can achieve better recognition on national and international level.

Quality grade

Satisfactory level of quality

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

Analysis

The social responsibility of KUAS is achieved through different professional projects (self-evaluation report page 22-23). As explained in self-evaluation report, projects have found their application and thus encouraged the development of the economy. KUAS employees prepare and publish professional studies and provide advisory services especially in the field of nature protection and tourism. KUAS representatives participate *pro bono* in decision-making of public interest and development of strategic documents by participating in city, county and other bodies. KUAS actively participates in different activities organised by City of Karlovac and Karlovac County. An active effort of KUAS to improve the quality of study and work for people with disabilities was recognized by the City of Karlovac and the KUAS was awarded with the "Blue Flower" award for promoting accessibility. KUAS provides its premises free of charge to public and civil sector entities for example Nikola Tesla Association Karlovac.

Recommendations for improvement

- KUAS has a very good, exemplary cooperation with the local community and should continue to contribute to its development.

Quality grade

High level of quality

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

Analysis

According to self-evaluation report, development Strategy of KUAS 2016-2021 states "Improve and continuously implement lifelong learning activities" as one of the tasks in Strategic goal 1. KUAS offers 9 lifelong learning programmes in the technical, biotechnical and social areas (Seminar for taking the professional exam for tourist guides, Training programme for gamekeepers, Training programme for game trophy evaluators, Language programmes of Business English and German, Training programme for the population Processor of raw food materials, Associate in the development and implementation of EU projects, Processor of medicinal plants and Graphic design associate). However, there is no data about goals of the lifelong learning programmes in self-evaluation report, or on the web page. According to interviews with the management

and QA committee and according to available documentation, there is no formal procedure for development and implementation of lifelong learning programmes. Reports on the proposed and the implemented lifelong learning programmes are published continuously within the annual report on the work of KUAS, but in report for 2019. there is only a short description about programmes, without any analysis, or the number of attendees. Report for 2018. states that only one programme had 4 attendees, while the others were not carried out. Considering the low number of attendees, alignment with social needs is questionable. There is no evidence that revision and development of lifelong learning programmes is carried out systematically and on a regular basis.

Recommendations for improvement

- Formalize procedure for development and revision of lifelong learning programmes. Analyse low interest for existing programmes and make changes for their better recognition
- Include market analysis and external stakeholders' opinions.
- Implement programmes which have professional role, especially in the fields where KUAS has strong connections to industry and economy.

Quality grade

Minimum level of quality

## II. Study programmes

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

Analysis

Whether the mission and vision of the KUAS focus on improvement of both – professional (*centre of professional thought*) and scientific (*centre of scientific thought*) competence, therefore also the study programmes are expected to support both types of competences, but the goals of the study programmes are focused clearly (except Food technology) on professional competencies (see the table 1). As the continuous improvement of study programmes is part of the KUAS mission, the HEI has implemented the system for the study programme development, nevertheless the goals of the programmes have not changed since the initial launch of the programmes (mostly 15 to 20 years ago). At the same time also the reasons and explanations why the study programme (or graduates with those particular competencies) is necessary in the labour market are not changed and are not renewed according to the information in "elaborat" since the first submission of the study programme.

Table 1. Study programme goals

| Study programme | Type | Start year | General goal of the programme |
|---|---|---|---|
| Mechatronics | Under-graduate | 2005. | To educate engineers who integrate fundamental engineering knowledge in mechanical engineering, industrial electronics and applied IT. |
| Mechanical Engineering | Under-graduate | 2005. | To educate mechanical engineers to independently perform the tasks of design, construction, testing, management and maintenance of mechanical devices and plants. |
| Food Technology | Under-graduate | 2000. | To educate engineers in the field of food technology, with recognition of professional specialization in brewing and dairy, based on scientific, applied and developmental research with the aim of transferring knowledge and innovation to the economy. |
| Hospitality Management | Under-graduate | 2003. | To educate bachelors in hospitality management who will be able to recognize, develop and provide quality service and complement the tourist offer of continental regions. |
| Safety and Protection | Under-graduate | 2000. | To educate engineers for the management and application of the system for the implementation of regulations, and the training of workers in the field of occupational safety and fire protection. |
| Wildlife Management and Nature Conservation | Under-graduate | 2003. | To educate engineers in the field of wildlife management and nature conservation and to strengthen the capacities of related stakeholders (in forestry and water management, ecological network management, civil society organizations, etc.). |
| Mechanical Engineering | graduate | 2005. | To educate mechanical engineers in advanced design and construction, planning of technological processes and production organisation in compliance with requirements of the expert on the labour market. |
| Safety and Protection | graduate | 2010. | To educate engineers for the operational management of occupational safety and fire protection systems, and the implementation of regulations in the field of work organizations. |
| Business Administration | graduate | 2005. | To educate specialists of various profiles to develop a managerial career to the highest levels of management. |

Based on the interviews with the KUAS management and SER, the KUAS intends to open new study programmes, but also the existing ones must be improved to respond to the needs of the labour market. KUAS has not narrowed the number of their intended business fields/areas/SP groups as the target direction, but according to the management feedback, they focus on creating the interdisciplinary study programmes in any fields. As a small institution, would be more reasonable to focus on their strengths (e.g. food technology or Engineering, where they already have quality laboratories and staff) and work out new interdisciplinary programmes on that, rather than to start establish totally new study programme directions.

KUAS has explained the need of the specialists/graduates in particular field with the number of unemployed people in this field. Such a comparison does not indicate or justify the need for specialist, but shows that in this field already are unemployment which can

be increased if the school "produces" some more specialist in this field. If the decrease of unemployment shows the positive trend, then it can be accepted reason/justification, but comparison with the graduates year by year is misleading and incorrect – no justified correlation.

| **Study programme** | **Explanation on the alignment of the labour market needs (KUAS, SER)** | **Comments** |
|---|---|---|
| Mechatronics (PHE) | Explained through the rich history of this field in this region and many top employers in this region. Collaboration with the employers.<br>Unemployment is relatively small. | Interdisciplinary and broad-based studies, which are needed in this region. Really low amount of unemployment in this field proves the need. Stable number of the admitted students confirms the need of such graduates in industry. |
| Mechanical Engineering (PHE) | Explained through the rich history of this field in this region and many top employers in this region. Collaboration with the employers.<br>Enrolment Policy and Scholarship Policy recommends increasing the nr of students. | Employers' readiness to hire students with such skills, proves the KUAS choices. Stable number of the admitted students confirms the need of such graduates in industry. |
| Food Technology (PHE) | Explanation is given through won competitions and got prizes.<br>Unemployment is decreasing. | No evidence that the study programme is in line with labour market needs. Won prizes show the good professional level, but not particularly the need of the market.<br>Decreasing number of the admitted students does not confirm the need of such graduates in industry and the decreasing number of the applications should be alarming. |
| Hospitality Management (PHE) | Croatian Tourism Development Strategy<br>Tourism Development Strategy of Karlovac 2020<br>Recommendations for Educational<br>Enrolment Policy and Scholarship Policy recommends decreasing the nr of students.<br>Unemployment is decreasing. | Well justified. Clear evidence that the specialists are needed in the local, regional and national market.<br>Decreasing number of the admitted students does not confirm the need of such graduates in industry. |
| Safety and Protection (PHE) | Need of those specialists is justified through the companies' obligation to follow the EU and Croatian law.<br>Despite of the high number of graduates, the unemployment is decreasing in this field. | Employers' readiness to hire students with such skills, proves the KUAS choices.<br>Stable number of the admitted students confirms the need of such graduates in industry, but the decreasing number of the applications should be alarming. |
| Wildlife Management and Nature Conservation (PHE) | Collaboration with the CAEN<br>Nature Protection Strategy 2025.<br>Unemployment is decreasing. | Uniqueness and collaboration with the umbrella authorities shows good collaboration with the market and response to the market needs.<br>Explained in regional and national level.<br>Decreasing number of the admitted students does not confirms the need of such graduates in industry. |
| Mechanical Engineering (graduate) | Explained through the rich history of this field in this region and many top employers in this region. Collaboration with the employers.<br>Enrolment Policy and Scholarship Policy recommends increasing the nr of students. | Employers' readiness to hire students with such skills, proves the KUAS choices. Decreasing number of the admitted students does not confirm the need of such graduates in industry and the decreasing number of the applications should be alarming. |
| Safety and Protection (graduate) | Need of those specialists is justified through the companies' obligation to follow the EU and Croatian law. | Employers' readiness to hire students with such skills, proves the KUAS choices. Increasing number of the applications and admitted students confirms the need of such graduates in industry. |

| | | |
|---|---|---|
| | Despite of the high number of graduates, the unemployment is remaining the same in this field. | |
| Business Administration (graduate) | Studies for the graduated specialists whose' career expects managerial competences. Unemployment is decreasing, but most of the graduates are working even before the admission as the specialists. | No uniqueness and justification why such are programme is needed in this region or in nation level. Stable number of the admitted and applied students is positive, but the numbers are 1/3 lower than enrolment quota. |

KUAS has good relations with the labour market representatives, which helps to get information about industry needs and future developments.

The high employment rate of the graduates does not show always the good quality of the graduates, but just high lack of employees in particular field (employers are ready to train the specialist themselves, just to get at least someone to work). Two facts from statistics (SER Analytic Supplement, tables 3.2 and 3.3) are alarming and refers to the possible threats for the KUAS's sustainability – 1) constant decreasing of the applications in all study programmes (excl. Safety and Protection); 2) Enrolment quotas are higher than number of admitted students (excl. Safety and Protection (graduate) and Mechatronics (undergraduate)).

Recommendations for improvement

- The existing study programmes need the systematic review according to the changes in external environment incl. labour market needs and changes in local, regional or national level strategies and politics.

- As a small institution, would be more reasonable to focus on their strengths (e.g. food technology or Engineering, where they already have quality laboratories and staff) and work out new interdisciplinary programmes on that, rather than to start establish totally new study programme directions.

- The goals of the study programmes should also indicate the scientific (science-based) intentions and quality.

- In some fields (e.g. Mechanical Engineering, Food Technology and Business Administration) the deeper analysis on industry needs could be useful to elaborate the strategies and future developments.

Quality grade

Satisfactory level of quality

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

Analysis

The HEI has defined the study programme level learning outcomes, but high number and too detailed content of outcomes per programme doesn't allow to get clear overview of the programme and assess the coherence with the mission and goals of the HEI. There is a high amount of different learning outcomes at the programme level (e.g. Mechanical Engineering – 31 (undergraduate) and 24 (graduate) outcomes; Wildlife Management and Nature Conservation – 16; Mechatronics – 32; Safety and Protection – 22 (undergraduate) and 31 (graduate); Food Technology – 31; Hospitality Management – 14; Business Administration – 14) many of which are too specific and would be better suited for defining specific courses. Too detailed outcomes are also confirmed by the fact that in the tables 2.1 in SER many of the outcomes are just connected with the one or two subjects, which clearly indicates also the low level of vertical coherence of the study programme.

| **Programme and level** | **Match between programme level and course level outcomes** | **Match with the level (EQF, CroQF, professional standards)** | **Match with the labour market, society needs and being up to date** |
|---|---|---|---|
| Mechatronics (PHE) | While inheriting some courses from more mature departments such as mechanical engineering, this is a relatively new study programme. The development of specific courses and laboratories is an ongoing process. The course learning outcomes generally match the programme level outcomes. Much of the literature are university-level textbooks. | Generally good. The English version is not fully completed on the institution's web site. | More elective courses could perhaps be offered to meet the demands of the key regional companies based on their feedback. |
| Mechanical Engineering (PHE) | The course learning outcomes generally match the programme level outcomes. Much of the literature are university-level textbooks. More elective courses could potentially be offered. | Generally good, according to standards and similar study programmes. The English version is not fully completed on the institution's web site. | More elective courses could perhaps be offered to meet the demands of the key regional companies based on their feedback. |
| Food Technology (PHE) | The learning outcomes of the professional study Food Technology (both programmes) are divided into 3 sub-levels, each sub-level is associated with a certain number of courses (6-15 depending on the sub-level). However, according to Table 2.1. of the Analytical supplement, a large number of study outcomes are associated with only one to three courses. Considering 31 LO of the study programme which are too specific it is impossible to do constructive alignment between course level LO and programme level LO. | Verbs such as: adopt, distinguish, apply, describe, recognize, enumerate, explain - are not recommended EQF Level 6 descriptors | Overall good, especially considering the local well-developed brewing and dairy industry. |
| Hospitality Management (PHE) | Huge amount of language courses is just connected with the one LO (communication | Six LOs out of 14 indicate the lowest level of LOs – define, know, describe. | According to the structure of the programme it is more language studies than |

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| | ability) of the SP and such an amount of ECTS for language studies is not justified. 8 credits are dedicated for the Physical Education courses, which are not connected with the SP goal and LOs in anyway. | Others are in 3rd level (apply) which is appropriate for the undergraduate level studies, but also the higher levels should be presented. CRQ and EQF expect graduate to have advanced knowledge (most of the titles and LOs of the subjects indicate the basics or fundamentals) and ability to manage complex projects, making decisions in unpredictable conditions etc., but those competencies do not reflect in the SP anyhow. | Hospitality Management (42 ECTC for courses of two languages). Although the goal and the level of the studies refer to the professional competencies, more than one third of the SP amount is dedicated to the general subjects like Maths (8 ECTS), Informatics (6), Basic Economics (10); PE (8) and Statistics (7) etc and Internship is just 7 credits. It is unclear on which professional competencies the SP is targeted. SP is not in coherence with the latest trends and achievements in the field, many study materials are from the beginning of the 2000 and even older (eg. Computer Science, Tourism Geography, Management, Entrepreneurship in Hospitality etc) |
| Safety and Protection (PHE) | The course learning outcomes generally match the programme level outcomes. | Generally good. Website has no English version available. | Generally, quite good. The absence of Directive 89/391 (the OSH "Framework Directive") from curriculum is surprising, when more specific EU regulations *are* mentioned. |
| Wildlife Management and Nature Conservation (PHE) | The course learning outcomes generally match the programme level outcomes. | LOs of the subjects are mostly well described. However, for soil science and hunting ground management, L4 is not well defined. It does not take into account forest ecosystems. Furthermore, the description of LV2 is too many disciplines which have no connection with subject sylviculture. | Generally good and coherent with the latest trends and market needs |
| Mechanical Engineering (graduate) | The study programme presentation on the web site could be improved in terms of composition of programme (obligatory, elective) per semester. The course learning outcomes generally match the programme level outcomes. Much of the literature are university-level textbooks. | Generally good. The English version is not fully completed on the institution's web site. | Generally good. |
| Safety and Protection (graduate) | The course learning outcomes generally match the programme level outcomes. | Generally good. Website has no English version available. | Generally, fulfils purpose. The absence of Directive 89/391 (the OSH "Framework Directive") from curriculum is surprising, when more specific EU regulations *are* mentioned. At undergrad level suggest having a clear framework for |

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|---|---|---|---|
| | | | management of risks as source material, such as ISO 31000. |
| Business Administration (graduate) | According to the aim of this SP, the focus should be on teaching management competencies, but majority of the courses and outcomes are dedicated to economics and/or environment and management competencies are not in focus. Some of the outcomes are too detailed or not important in this study programme (eg. "having entrepreneurial ideas " (PU8)), because are connected with just some of the courses too indirectly.<br>Some of the courses are connected with far too many programme level outcomes (eg. Applied Logistics, Management and Innovation management) which indicates the missing focus of the courses. | The LOs of the programme level are divided quite equally between levels of taxonomy, but in graduate programme the focus should be more on higher level outcomes indicating highly specialised knowledge as the bases for original thinking, and problem-solving skills integrating knowledge from different fields.<br>Three LOs (out of 14) are word by word the same as in Hospitality management undergraduate study programme. Such are overlapping is not accepted, whether the study levels and areas are different. | Although the three LOs refer the importance of sustainable business, the content of the courses is not updated. Most of the courses (eg Strategic management, Applied Logistics etc) base on the materials from the beginning of 2000, which are really out-dated for this field of studies. Newer trends as digitalisation, change and agile management, human-based management have not reached to the curricula. |

Too many programme level learning outcomes contains such terms as know, understand, describe, and explain. These learning outcomes are vague and accordingly often not observable or measurable and indicate the lower levels of outcomes according to the EQF and LO taxonomies, which is not appropriate for the 6$^{th}$and 7$^{th}$level of the programmes. Students who intend to obtain first or second level higher education should according to qualification framework demonstrate higher level of competence (analyse, characterize, categorize, compare, differentiate, create etc.)
In general, the content of subjects is consistent with study programme and the type and the level of the studies, however there is always a space for improvement. There could be more references and the latest research methodology implied in the literature lists of modules. Course content and the study methods should express latest achievements of the study field and enable student to achieve as modern knowledge and competencies as possible.

Recommendations for improvement

- Renew the study programmes (Hospitality Management, Business Administration) according to the latest trends, achievements and modern principles in the industries.

- Raise the level of learning outcomes to be in accordance with the requirements of the CroQF and EQF 6thand 7thlevel.

- Update the syllabuses and study materials to raise the level and quality of the studies.

- Reduce the amount of Study programme level learning outcomes according to the most important competencies which students need to achieve during the studies.

Quality grade
Minimum level of quality

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

Analysis
The delivering of the necessary learning outcomes is supported through the formal processes as creating and introducing the course syllabuses and course requirements for the students in the beginning of every course, launching and sticking to the study plan, academic calendar and examination dates. However, the achievement of intended LOs should be proved through assessment of the students and according to the feedback from the labour market – how well the graduates can cope with the work requirements and are prepared to work in learnt specialisation.

In 2019 KUAS conducted a survey (n=14) among employees (Mechatronics) with the goal to assess employees' satisfaction with the employed students' competences. The results indicated several problem areas. According to the collected feedback, KUAS has made some improvements in Mechatronics studies: modern equipment of labs, launch of vocational standard in Mechatronics, implementation of project-based learning approach, new elective courses. Feedback surveys of employees must be systematic and cover all the study areas to collect valuable feedback about students' coping in the labour market.

Based on the student feedback, the level of home assignments, seminar exercises, auditory work and methods of teaching do not prepare them well for the final exam of the subjects – exams are harder than the level of preparatory assignments.
Although the final thesis should show the students ability to apply the knowledge acquired during his studies and show that (s)he can successfully solve the tasks of his profession at the level of the title acquired by the diploma (Ordinance of final theses and exams). Therefore, the quality of final theses should show the achievement of most LOs concerning the professional and scientific skills.
Random choice (n=15) among final papers available in the KUAS webpage, shows following problems which do not confirm the achievement of described LOs:

1. Low amount of the used literature, not integrated and basic level theoretical literature review

2. Missing of in-text references (theoretical parts) as important requirement in academic papers.

3. Basic statistical analysis – just descriptive statistics, pie-type scales visualizing amount of "no" and "yes" answers etc.

4. Lack of scientific and foreign sources.

The teachers have possibility to change their courses' syllabuses up to 20% per year, but according to the out-dated content of many syllabuses, not many teachers are using this option.

Recommendations for improvement

- Introducing and implementation of high-level requirements for the final papers and theses, appropriate for the level and type of the studies and described LOs

- More attention to the content-rich and justified changes in the study programmes, necessary to provide students with the modern competences needed in the labour market

- unifying the level of auditory and home assignments with the level and requirements of exams.

- Collecting the systematic feedback from the employers about the competence level of the graduates and improving the studies and study programmes according to this.

Quality grade

Satisfactory level of quality

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

Analysis

According to the "Ordinance of procedure of proposing, evaluating and adopting new study programmes" and interviews, the academic departments are responsible for the evaluation and improvement of the existing study programmes, as well on evaluating market needs and working out the new study programmes. The process of improvement of the existing study programme is mostly "bottom-up", where according to the teachers' and/ or students' feedback, the changes can be started. However, based on students' feedback, their recommendations are not used in improvements and they do not get any feedback about the possible or future use of their feedback and suggestions. Teachers know the process of study programme improvement, but if they change their subject, then the changes are smaller than 20% and the full process of confirming is not necessary. According to the syllabuses (e.g. old study materials, low level of new theories and practical solutions etc) and structure and content of some study programmes (eg. Business Administration, Hospitality management etc), can be argued that there are no important changes during the last accreditation period.

With some exceptions (Mechatronics study programme) departments do not involve employers and alumni systematically to the study programme development process – there are no regular feedback surveys for those stakeholders. According to the aforementioned ordinance, the Study programme commission consist of five person representing Vice-dean of Studies, academic department, teachers, students and external stakeholders. Such a structure means that in the committee is either one person amongst alumni or employers or public bodies etc. This is not enough to bring valuable input from the labour market to the study programme.

During the last two years, the KUAS has initiated seven new study programmes, which is definitely positive trend, but since the approve of those programmes, the last new study programme was Safety and Protection (graduate) in 2010.

The KUAS has the procedure of publishing new versions of study programmes and those are available for the internal stakeholders (incl. students), but are not introduced to the external partners, although the study programmes are available in the KUAS 's webpage.

Recommendations for improvement

- Collect systematically feedback from different external stakeholders for the Study Programme Committee to discuss and use for improvements in study programme if necessary
- Involve more and different type of external stakeholders to the study programme committees.
- Monitor and motivate the teachers to improve their courses and bring into their studies more modern theories, recent research results, new knowledge and practices.
- Organise the regular feedback for the students, giving the overview of planned and applied improvements.

Quality grade

Satisfactory level of quality

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

Analysis

According to the SER, KUAS follows the general ECTS requirements in planning and conducting the studies. Based on the study programme student workload allocations (see the table), there are several problems raised concerning the different understandings of academic departments in organising the studies.

| Study programme | Allocation of ECTS |
|---|---|
| Mechatronics (PHE) | Allocation of the ECTS and student work hours is not available in the web-page. |
| Mechanical Engineering (PHE) | Allocation of the student work hours is not available in the web-page. |
| Food Technology (PHE) | Student workload varies from 26-30 hours per week, but do not include student individual work*. Physical Education (as the part of all undergraduate curricula) is not counted if the student semester workload is calculated. All the compulsory courses must be included to get the correct student workload. The same amount of work hours corresponds to the different amount of ECTS (eg. Primjena računala (4 ECTS) and Termodinamika i termo tehnika (3 ECTS) both have 45 hours student work) and oppositely – the same number of credits means totally different working hours (eg. Kemija I fizika mlijeka (6 credits=75 hours), Postrojenja I tehnološki procesi prerade mlijeka (6=90), Mikrobiologija mlijeka (6=60)). |
| Hospitality Management (PHE) | Student workload varies from 25-30 hours per week, but do not include student individual work*. Physical Education (as the part of all undergraduate curricula) is not counted if the student semester workload is calculated. All the compulsory courses must be included to get the correct student workload. The same amount of work hours corresponds to the different amount of ECTS (eg. Poslovni statistika I (3 ECTS) and Poslovni statistika II (4 ECTS) both have 45 hours student work) and oppositely – the same number of credits means totally different working hours (eg. Poslovna matematika (4 credits=60 hours), Turistička geografija (4=45)). |
| Safety and Protection (PHE) | Student workload varies from 24-30 hours per week, but do not include student individual work*. Physical Education (as the part of all undergraduate curricula) is not counted if the student semester workload is calculated. All the compulsory courses must be included to get the correct student workload. The same amount of work hours corresponds to the different amount of ECTS (eg. Primjena računala (5 ECTS) and Zakonska regulativa sigurnosti (4 ECTS) both have 75 hours student work) and oppositely – the same number of credits means totally different working hours (eg. Radno pravo i upravni postupak (3,5 credits=30 hours), Sigurnost pri tehnološkim procesima (3,5=45). |
| Wildlife Management and Nature Conservation (PHE) | Student workload varies from 26-32 hours per week, but do not include student individual work*. The same amount of work hours corresponds to the different amount of ECTS (eg. Primjena računala (3 ECTS) and Opca i anorganska kemija (3 ECTS) both have 45 hours student work) and oppositely – the same number of credits means totally different working hours (eg. Opca i anorganska kemija (4 credits=45 hours), Geobotanika (4=60), Strani jezik (4=30)). |
| Mechanical Engineering (graduate) | Allocation of the ECTS and student work hours is not available in the web-page. |
| Safety and Protection (graduate) | Student workload varies from 23-24 hours per week, but do not include electives and student individual work*. The same amount of work hours corresponds to the different amount of ECTS (eg. Ekonomika zaštite (5 ECTS) and Specijalistički izborni kolegij I (6 ECTS) both have 60 hours student work) and oppositely – the same number of credits means totally different working hours (eg. Andragogija (6 credits=75 hours), Specijalistički izborni kolegij I (6=60)). |
| Business Administration (graduate) | Student workload is 24 hours per week, but do not include electives and student individual work*. Even the part-time students need to do the same amount work per ECTS. The difference with the full-time studies can be in the contact hours per ECTS and in the length of the studies (e.g. 6 semesters instead of 4 semesters for full-time studies). All the subjects in the study programme means equally 60 hours student work, although the number of ECTS varies from 4-6. |

*according to ECTS regulation, the student workload per week must be approx. 40 hours (30 ECTS per semester, one ECTS is 25 – 30 hours, semester is 20 weeks, so 30x25(30)/20=37,5(45) hours)

The same course (e.g. Primjena računala) have the different ECTS in different study programmes FT – 4; and WM – 3 credits), but the syllabuses, LOs are exactly the same. At the same time the teachers are different, materials and topics are rather old, indicating

the problems in meaningful ECTS allocation and students' work-load analysis as well in the programme development process.

According to the problems raised in the previous analysis and teachers' feedback during the accreditation interviews, departments or teachers do not analyse the teaching effectiveness or requirements for the students – how much time and efforts the passing of particular course needs from the students and the course content and requirements in coherence with the given ECTS points.

KUAS conducts the surveys to assess the students' satisfaction with the workload and its' coherence with the given ECTS. Although the number of respondents was low and some of the courses got just feedback from one or two students, then some conclusions can be made: 1) students assess their workload at home (in preparing for the classes) rather low (answers like "no need for home work at all" and "up-to half an hour" were frequent); 2) some subjects were highlighted as the problematic concerning the student workload; 3) proper analysis of the results should follow and must be introduced together with the planned improvements for the teachers and students.

Practical learning KUAS have gained through laboratory practices, practical exercises in seminars, field work and student professional practice (internship).

One of the main and obligatory parts of the professional higher education study programmes is internship. As said in the SER, the internship is the most important possibility for the student to gain practical skills - acquire the necessary practical experience; deal with current practical problems and perform practical work as well as train them for independent work related to their profession.

| Study programme | ECTS/hours* for Internship | Comments |
|---|---|---|
| Mechatronics (PHE) | 20/240 | There is no information available in the KUAS's webpage about the student work hours. No syllabus or similar document about the internship (goal, LOs, tasks, assessment criteria etc) content in this study field. According to the requirements*, the students' work hours for passing Internship should be between 500 – 600 hours. |
| Mechanical Engineering (PHE) | 15/?<br>20/240** | There is no information available in the KUAS's webpage about the student work hours and allocation plan in the web-page shows the that the amount of the Internship is 15 credits, but according to the SER the Internship is 20 credits. No syllabus or similar document about the internship (goal, LOs, tasks, assessment criteria etc) content in this study field. According to the requirements*, the students' work hours for passing Internship should be between 375 – 450 hours. |
| Food Technology (PHE) | 20/225 | 11,25 hours of student work per one ECTS. According to the requirements*, the students' work hours for passing Internship should be between 500 – 600 hours. |
| Hospitality Management (PHE) | 7/120 | 17,15 hours of student work per one ECTS. According to the requirements*, the students' work hours for passing Internship should be between 175– 210 hours. 7 ECTS out of 180 is definitely too few to achieve one of the most important requirements for PHE and fulfil the goal of programme (graduates provide quality service). |
| Safety and Protection (PHE) | 17/240 | 14,12 hours of student work per one ECTS. According to the requirements*, the students' work hours for passing Internship should be between 425 – 510 hours. |

| | | |
|---|---|---|
| Wildlife Management and Nature Conservation (PHE) | 20/240 | 12 hours of student work per one ECTS. According to the requirements*, the students' work hours for passing Internship should be between 500 – 600 hours. |
| Mechanical Engineering (graduate) | No internship | Allocation of the courses, ECTSs and student work hours is not available in the KUAS webpage. Internship is not part of the SP, because it is for the graduates of ME (undergraduate) who already pass the internship in their 1st level HE. |
| Safety and Protection (graduate) | 12/120 | 10 hours of student work per one ECTS. According to the requirements*, the students' work hours for passing Internship should be between 300 – 360 hours. |
| Business Administration (graduate) | No internship | Studies are only for part-time students, who work anyway and do not need additional work experience. |

*1 ECTS is 25-30 hours student work
**according to the SER p47

According to the interviews with the students, they are not getting any formal feedback for their responses to the surveys and/or written recommendations, comments etc concerning the studies. Students also mentioned that there is not enough practical tasks and assignments:

- Lack of fieldwork in master level programmes
- Exercises and assignments during the studies should be better linked with the real problems/tasks of the industry
- Not enough practical tasks in the labs.

## Recommendations for improvement

- Unify the requirements for ECTS allocation amongst different academic departments and set up the central rules how many contact hours one ECTS can/should consist of (can be given as the interval)
- Calculate the student workload not according to the contact hours, but according to the student real and total average workload
- Include to the workload analysis/overview all the elements of study programme (e.g. Physical Training)
- Use the results of surveys for planning and implementing the necessary changes in study programmes, syllabuses etc concerning the students work-load. Introduce the feedback results and planned and applied improvements for the students.

## Quality grade

Minimum level of quality

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

## Analysis

Student Internship is regulated by the "Regulation on the Methods and Conditions of Student Practice Performance" and "Student Practice Performance Procedure". Last mentioned document (p. 6.5) is describing the duration of the internship (Wild life and Nature Conservation department – 12 working days, Business administration department – 120 hours and the others 30 days), which is not in coherence with the existing study programmes (e.g. in Wild Life and Nature Conservation study programme – 240 hours etc).

Although the Internship number of credits vary from 7-20 in different study programmes and the fields of studies are totally different disciplines (study programme groups) from hospitality to mechanical engineering, then the same two documents regulate all those different practices. In some study programme there are additional syllabus for the Internship, but the quality of those is rather low – tasks/topics for the internship missing at all (e.g. Food Technology) or are too general (e.g. Safety and Protection) and some departments (e.g. Mechanical Engineering and Mechatronics) do not have Internship syllabus at all or this is not publicly available in the web-page.
Based on students' and employers' feedback, the requirements for the Internship are not always clear. In some department Student Practice Manager communicates with all the Internship supervisors from the companies' side, but this is occasional, depending on study programme, amount of the students and the person who fulfils the Student practice manager duties. Whether the Student Practice Manager is proposed by the Head of the Department in conjunction with the teaching load for each academic year, then every year can be different teacher responsible for the internship, which do not support the creation of strong and sustainable internship companies and supervisors' network.

Recommendations for improvement

- Update the regulations of internship and describing the exact requirements and LOs for every specialization/study programme (especially in Mechatronics and Mechanical Engineering), according to the given ECTS and study programme LOs and goals.

- Define and highlight the internship role and importance in achieving study programme level outcomes.

Quality grade
Satisfactory level of quality

## III. Teaching process and student support

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

Analysis

According to the self-evaluation report and demonstrated by documentation made available to the panel, KUAS has the admission or continuation of studies criteria published and consistently applied. However, there was little evidence of effective mechanisms for recognising prior learning. In conjunction of a transfer, for example, prior studies are properly recognised. However, any other form of prior learning is not recognised at all, which is the main note of this criteria that the panel has noticed.

Recommendations for improvement

- Suggest a creation of recognition of prior learning policy where students may demonstrate their competence corresponding to their degree's learning outcomes, irrespective of where, how, and when they have acquired it. The student will identify their competence and describe it in concrete terms and compare it with the learning outcomes of study units in their curriculum. To demonstrate their competence, a student provides evidence, such as portfolios, samples of work, interviews, written pieces of work or oral presentations. The lecturer then grades that work as they would a study unit.

Quality grade

Satisfactory level of quality

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

Analysis

Procedures for monitoring student progress at KUAS were described in the self-evaluation report and confirmed by interviews. The methodology to do so on both individual course level (described in syllabus) as study programme level (described in Ordinance on studies). KUAS collects and monitors data on the progress of students in their studies through the Information System of Higher Education Institutions (ISVU). Some of the analysed categories presented as evidence were: number of exams, pass rates and average grades for exam dates for all courses in the current and last year; pass rates for the verbal part of the exam for exam dates for all courses; and pass rates and grade point average per teacher and study level.

The gathering and analysis of information on student progress is not problematic, but the use of that information to ensure continuity and completion of study is still recommended to be developed. The panel concurs with KUAS in their self-evaluation conclusion, found in the report, that "a worrying fact is the number of students who do not complete their studies". This drop-out percentage is 49.84% for the entire KUAS and far more likely to occur in undergraduate studies, all of which have a drop-out percentage larger than this, all the way up to almost 77% in Food Technology and almost 76% in Mechatronics.

Specialist graduate studies drop-out percentages are considerably lower, between approximately 15% and 25%. Special focus and discussions by the panel were therefore targeted with these priorities in mind.

According to various interviews (students, lecturers especially) the earlier knowledge requirements in mathematics, chemistry, and physics have proven to cause problems. Most incoming students to undergraduate programs come from professional schools, which does not prepare the subjects in these topics adequately. To mitigate the problem, Mechatronics and Mechanical Engineering at least have extra classes possible to catch starting students up with others, but according to testimony not enough students who should attend these do so.

Recommendations for improvement

- Formalizing starting level tests in all undergraduate programs on problematic topics (mathematics, chemistry, physics). Recommend that these tests are closely tied to the background of a student (e.g. gymnasium or vocational). Test results would then set up a path for the student, varying from intensive catch-up classes with mentoring to self-studying programmes followed by test, to of course a clear pass where further measures are not necessary. If a student's entry level requires high level of catching up, the catch-up classes should be prioritized over some regular first year studies so as not to overwhelm the students immediately. Attendance in and passing of catch-up classes should be enforced.
- A questionnaire to collect feedback from those dropping out from study programmes or classes is proposed, where possible. The questionnaire should especially make the student consider the possible knowledge gaps that made studying too hard for them.

Quality grade
Satisfactory level of quality

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

Analysis
According to the self-evaluation report, teaching at KUAS consists of "lectures, seminars, practice, laboratory practice, field work, practical instruction, projects, consultations, mentoring and professional practice". KUAS also, quote, "encourages" increase in using e-learning systems, but there was little in-depth information available on this and the application of different studying methods as well as student-centred learning. In interviews, the positive aspect of was that teachers were often committed to aiding the students in studying, but a possible weakness was that in some instances studying

consists too much of straight lectures, described even as “uninteresting”. This was also discovered when examining feedback given by students. Very importantly, the interviews revealed that feedback on studying methods does not tend to lead to changes on an adequate level and there is a feeling that giving feedback as a student on this issue was not useful. Regardless on the possible objective facts on how feedback is processed and how it is used, the experience of feedback “falling on deaf ears” is problematic itself.

Recommendations for improvement

- Applying to study unit feedback and the like systematically collected feedback, policies should be in place that ensure feedback from students always loops back to them. Feedback should be acknowledged, and if unclear probed further. It is better to communicate too much than too little in this regard. Students of an e.g. study unit that has given feedback should have access to documented development steps, with emphasis on action to be taken in future implementations.

- The panel was unable to determine which programmes might have more pronounced problems with the use of “monotonous” teaching methods, but the feedback reports should be inspected by heads of departments and pay attention on possible professional development or mentoring a lecturer might need to introduce variation in their toolkit. Consider methods, such as internal seminars or events and a database to spread good practices among the lecturers across all study programmes.

Quality grade

Satisfactory level of quality

### 3.4. The higher education institution ensures adequate student support.

Analysis

According to the self-evaluation report, KUAS has only one person working in the library. Interviews with students show that they are for the most part happy with library, but service can be hard to come by. One person employed is also risky in sense of continuity of services. The library opening hours are extensive enough, but conversely there are four people working in the student affairs office which is open for three hours only. There is support for mobility as well as legal and psychological counselling available. However, there is no evidence of a proper career service in KUAS, so guidance in career matters is dependent on personal mentoring and unofficial discussions with lecturers which is not recommended; it impacts the workload of lecturers negatively and deprives the students of an important support system that can support their careers for years even after graduation. Currently many students are not aware of mentoring that should be available.

Recommendations for improvement

- Suggest KUAS sets up a career development centre. It should provide career counselling on study- and career choices, finding and applying for work, recognition of skills and competences, assistance in creation of CV's as organize workshops and events in all this, taking advantage of the professional networks and alumni KUAS has in the working life.

- Since many students are not aware of the mentoring teacher, informing the students must be improved. It is also possible that the mentoring teachers are not all willing or suitable to the task, or perhaps don't have time to perform that duty. Mentoring lecturers should be allocated time and training to perform mentoring in a committed way. Mentoring teachers should be present throughout the studies, from welcoming them to the school and onwards with periodic guidance. Other measures of visibility should also be done, e.g. in school events, message boards etc. This would assist in student retention, pass percentage, career advice, professional growth, etc.

- Student affairs office services should consider extending their service times, or alternatively automate some tasks so that they can be done online or via dropped-off messages and the like.

Quality grade
Minimum level of quality

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

Analysis
Equal access to education and all infrastructural facilities at KUAS is enabled to students and other persons with disabilities and reduced mobility. As evidence, these activities and structural changes were described in the self-evaluation report and observed on location in the campus. According to the self-evaluation report, students with disabilities also have a Center for support and a Coordinating Body of the Centre set up with representation from outside KUAS such as Association of Persons with Disabilities of Karlovac County; support extends also to war veterans and some adjacent groups. Students with e.g. dysgraphia can have adjustments made and proceed in their studies with success, this was verified in various interviews as well.

Recommendations for improvement
- None

Quality grade
High level of quality

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

Analysis

Based on self-evaluation report, student mobility at KUAS is achieved through ERASMUS+ programme and the higher education institution has a total of 21 bilateral agreements under the Erasmus+ programme and 3 bilateral agreements with institutions from partner countries. Mobility activities that are being implemented at KUAS are KA103 and KA107 projects and partnership on KA2 project MILK-ed: Modern and Innovative on Line-based Know-how on European Dairy Processing, whose holder is a Slovenian higher education institution.

Based on the gathered information (visit to KUAS, self-evaluation report, feedback from students, ERASMUS coordinator, Dean and Vice deans) students are informed about ERASMUS+ programme through a presentation at the beginning of their academic year by ERAMUS coordinator. Students are also informed about student mobility through KUAS official web page that has all the relevant information about the mobility programme. Students can find feedback and shared experience of the students who had already went through the mobility process.

KUAS provides good support to students in applying for and carrying out exchange programmes, based on student feedback and relevant information: availability of ERASMUS coordinator and KUAS Committee for Erasmus Mobility. After the achieved mobility, KUAS ensures the recognition of ECTS credits gained at another higher education institution by implementing the procedure for recognising courses and ECTS credits that the student had acquired during the mobility period. KUAS has implemented guest lectures in English, the use of foreign literature and opportunity of writing professional and scientific papers in English as a way for students to gain adequate competencies required for the employment in an international environment.

Feedback from students regarding the mobility programme is monitored through "Mobility+ tool" and personal approach from the ERASMUS coordinator, although (based on the information that was provided for Members of the Expert Panel) there is absence of systematic methods of collecting data regarding student satisfaction with the quality of KUAS support with practical matters of student mobility (such as questionnaires). There is also a low rate of outgoing students which could be improved by KUAS. Although there are many part-time students that find it difficult to be a part of ERASMUS+ programme because of work, there are also many regular students that could be motivated to use student mobility opportunity.

Recommendations for improvement

- Implementing a systematic method of collecting data about student satisfaction with the quality of KUAS support with practical matters of student mobility (such as questionnaires)

- Implementing methods that would ensure higher rate of outgoing students

Quality grade

Satisfactory level of quality

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

Analysis

According to the self-evaluation report, incoming student mobility at KUAS is enabled within the concluded bilateral agreements within the Erasmus+ mobility programme and the Erasmus Charter. The process of incoming mobility is determined by the Ordinance on the Erasmus International Mobility Programme. Support for the incoming students, when applying and studying at KUAS, is primarily provided by the Erasmus coordinator, but also by a vice-dean for education, vice-dean for professional, scientific work and international cooperation and a senior expert in the Office for International Cooperation and Projects who provides administrative support.

Foreign students have an opportunity to attend classes delivered in English language, as a part of the study programmes. Due to a small number of foreign students, (since the last re-accreditation only 3 incoming mobilities for the purposes of studies and 5 incoming mobilities for the purpose of professional practice) classes were only held in the form of consultative classes in English language. According to the information that Members of the Expert Panel were given, KUAS does not collect feedback on satisfaction and needs of foreign students due to the shortage of incoming student mobility. Information on the opportunities for enrolment and study is available to foreign students in a foreign language on KUAS official web page, but the information is deficient and web page is not user-friendly to foreign students, due to the fact that it is almost entirely on Croatian language.

Recommendations for improvement

- Creating a web page that is user-friendly for foreign students by making an English version of the web page

- Implementing methods that would focus on attracting more foreign students to KUAS and by that, rising the rate of incoming student mobility

- Implementing a systematic method of collecting feedback on satisfaction and needs of foreign students

Quality grade
Minimum level of quality

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

Analysis
According to the self-evaluation report and interviews with dean, Vice Deans, professors, teaching assistants and students, the criteria and methods for evaluation and grading are clear for the students and published before the beginning of a course. At the introductory lecture, teachers introduce students to the evaluation and assessment criteria and methods according to learning outcomes and present methods and exam technologies which will be used during evaluation of acquired learning outcomes during exams, as well as student participation in practical work and lectures.

Although most of the students thought their professors are objective and consistent in implementation of assessment and grading, some students, during our visit to KUAS, shared information about certain teachers who do not follow these criteria.

Measures that KUAS implements for ensuring objectivity and reliability of grading is student surveys, double marking (more than one person grades the student – professor and teaching assistant) and student complaint procedure.

Although student surveys assess the appropriateness of methods for testing knowledge, some students shared their concerns:

- The teacher that is assessed in the survey hands out surveys and collects them. Concern: teachers recognising students answers due to the order of collecting surveys in class and student handwriting (not completely anonymous)
- Not answering honestly in their surveys Concern: KUAS won't take any measures

According to the presented syllabuses, some possible problems concerning the assessment system raised:

- assessment methods are the same throughout the curricula (written test, oral exam), but whether the expected learning outcomes are different, then the best matching assessment methods should be different (e.g. Either written test or oral exam is not the proper way to assess eg practical skills).

- according to the information what was given in the syllabuses, it is not possible to assess the coherence between LOs and assessment criteria (not much info about criteria).

- majority of the teachers do not provide formative assessment

According to the and interviews that were held, students do receive feedback on the evaluation results and have the right to see the exam, where they can also get advice, as required, in order to address learning outcomes of a certain courses they still have not passed. Most of the students confirmed that information, but some expressed their concerns with certain individuals which declined their right to see the exam. According to the evidence that Members of the Expert Panel were given (examples of appeal proceedings and decisions), there is a functional procedure of student's complaint. Based on the evidence KUAS provided, KUAS does provide support to the academic staff in the development of skills related to the testing and assessment methods by assuring educations for its employees, but should consider increasing the number of mentioned educations.

KUAS provides good support for certain groups of students regarding examination procedures to suit those groups. They achieve that by adjusting exam instruments or the method of examination. For example, they give the student longer time to write the exam, adjusted printout font in the written exam text (for students with dysgraphia) and in case of problems with written/oral method of answering there is a combination of different answering methods.

Recommendations for improvement

- Ensuring more educational programmes for those who assess students regarding their development of skills related to the testing and assessment methods.

- Implementing online student surveys which would allow them complete anonymity when assessing teacher's objectivity and reliability of grading.

- Increase the number of students that fill out the survey. According to the evidence KUAS has provided, in the last survey for academic year 2018. /2019., only 358 students filled out the survey.

- Give more importance to issues related to whether those who grade students, give students the right to see exams (example: implement a section in questionnaires and take action if the evaluator scores very low regarding that topic)

- Implementing and supporting learning outcome based assessment - student must be in the centre of every aspect and process of the study, also in assessment - every learning outcome must be assessed, formative assessment throughout the course

to support learners to achieve intended LOs, higher flexibility in choosing and implementing the summative assessment methods, coherence between study methods and assessment methods, assessment criteria should be measurable and matched with LOs.

Quality grade

Minimum level of quality

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

Analysis

According to the self-evaluation report, KUAS issues its students a Certificate of study completion upon study completion. At the formal ceremony for graduated students, KUAS issues students a Diploma and a Study Supplement in Croatian and English language. The Study Supplement is prepared in accordance with the Regulation on the Content of Diplomas and Additional Documents on Studies of the Ministry of Science and Education.

During the visit at KUAS, Members of the Expert Panel were given many examples of diplomas and Diploma Supplements and based on the evidence that was given, KUAS does issue appropriate documents upon the completion of studies. All the documents were in accordance with the relevant regulations and Diploma Supplements contained all prescribed information in Croatian and English language.

Recommendations for improvement

- None

Quality grade

High level of quality

### 3.10. The higher education institution is committed to the employability of graduates.

Analysis

According to the Self-evaluation document and interview with dean of KUAS, KUAS analyses the employability of their graduates by keeping track and analysing statistical reports created by the Croatian Employment Service on the number of unemployed students. KUAS aligns admission quotas with labour and social market needs by

analysing the document called "Recommendations for educational enrolment policy and scholarship policy" which is published by CES, once a year.

The structure and the content of study programmes should be more focused on labour market needs. Right now, there are subjects which do not support employability e.g. PE, huge amount of maths, too general subjects etc.

Prospective students are informed about the opportunities to continue education and find employment after graduation. KUAS informs students about the opportunity to continue education through information that is published on their official web page, "Open doors" event and in students introductory lecture in their first academic year by Head of the Department. Students are informed about the employment opportunities by completing student practice which gives them the direct opportunity to stay in touch with the employer or even get employed by that same company. According to Self-evaluation document, companies sometimes publish job advertisements directly at KUAS. In the year of the re-accreditation, KUAS does not offer support regarding future career planning but should implement one in their near future.

From the interviews with KUAS alumni and employers, KUAS is very good at maintaining contacts with both groups but contacts with alumni and employers are maintained by individual contact.

Recommendations for improvement

- Implementing systematic methods of maintaining contact with alumni and employers, rather than on an individual level (creating a data base)
- Adjust the structure and the content of study programmes with labour market needs
- Implementing "Career development support service" which should assist the student, together with their mentoring teacher, to evaluate and develop their own employability. Services could include information on applying to work, upkeep of CV/portfolio/social media presence etc.

Quality grade

Satisfactory level of quality

## IV. Teaching and institutional capacities

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

Analysis

Teachers are well qualified to deliver the study programs and achieve the learning outcomes. The student-teacher ratio according to Self-evaluation Report was not in the line with the minimum condition prescribed. However, the new data provided during the expert panel visit show the reduction therefore, today student-teacher ratio is satisfactory.

Table 4.3 of the Analytical supplement presents teaching workload in academic year 2017/2018. According to the Collective Agreement for the System of Science and Higher Education which was valid up to 2013, the workload of full-time teachers totalled 450 norm hours per year +/- 20%, and 300 norm hours for associate teachers, also +/- 20 %. However, based on the presented data in table 4.3, it can be seen that 33 out of 56 teachers had teaching workload above limit of 450 norm hours + 20%. Among them, 7 teachers had more than 800 norm hours of teaching (up to 1000) which would be enough for full time job for additional teacher. The same table presented workload for 6 teaching assistants whose teaching workload varied from 238 to 709 norm hours, and it shouldn't be higher than 300 norm hours + 20%.

Since the academic year of 2019/2020 teacher workload has been regulated by the Collective Agreement for Science and Higher Education. The main purpose of the new Collective agreement is to distribute evenly teaching workload, professional, scientific and administrative work.

Teaching workload for academic year 2020/2021 is presented in Table provided in additional documentation together with the Dean's decision on the actual division and composition of working time during re-accreditation procedure. In current academic year, flexible worktime is applied to 43 teachers (For 24 teachers 90 % of total work time is teaching, for 19 teachers 70% or 80 % of total worktime is teaching), and teachers have additional overtime work above maximum teaching worktime according to flexible division provided by Collective agreement. Comparing teaching workload in 2018 and 2021, it can be seen that high teaching workload is constant for high number of teachers at KUAS, not leaving any space for professional and scientific work which is necessary for the advancement of an individual and the institution.

Based on the above, teacher workload of KUAS is not in line with relevant legislation and collective agreement. Flexible division of working time can only apply to individuals, i.e. to a smaller number of people who teach in certain study programs and cannot be carried out for the same persons for a longer period of time. Besides, compensation for overtime work in teaching in KUAS is not calculated according to standard division (as it should be), but to flexible division.

This does not ensure the appropriate distribution between teaching, professional, scientific and administrative work. The reduction of the teaching workload is needed for many teachers.

Consequently, the number of full-time teachers is not adequate.

Recommendations for improvement

- Flexible division of worktime should be applied only to small number of teaching staff for limited period of time.
- It is recommended to apply the standard division of working time as a calculation benchmark for overtime compensation.
- Better distribution of teaching load according to the prescribed teachers` norm.

Quality grade

Minimum level of quality

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

Analysis

According to self-evaluation report external associates are engaged in the teaching process if it is not possible to ensure a full workload in norm hours in courses they are engaged in and thus there is no possibility for their employment or due to specific requirements of learning outcomes in certain courses that require specific knowledge and skills that the engaged external associates possess.

All external associates have relevant work experience gained in institutions and institutes in which they are employed. Based on available data, 50 external associates were employed in the academic year 2018/2019, 20 of them have a PhD and 7 possess a Master of Science diploma.

During the interviews external associates provided the expert panel with the examples where external associates were involved in the co-supervision of final and graduation theses and the organization of students` professional practise at their employer. According to the self-evaluation report, they are financially stimulated by KUAS for mentoring more than one final theses.

Furthermore, some of them are involved in national and international scientific projects and they are implementing gained knowledge in the teaching process. They also provide suggestions for the improvement of study programmes.

Recommendations for improvement

- To participate more in Erasmus grant programmes, mobility for teaching purposes

Quality grade

High level of quality

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

Analysis

The teacher's appointment procedure arises from development goals, KUAS Development Strategy, Strategic Goal 5. It has been in line with legislations and internal acts. The vacancies have been properly advertised.

Selection, appointment and evaluation of teachers have been done based on the state legal acts and the Statute of KUAS. Methods for selection has been prescribed by the national minimum conditions. Promotion of the teacher in higher grade has been based on evaluations by the members of KUAS Expert Council. There are no the additional internal criteria for the promotion of teachers. The criteria of excellence and rewarding of excellence have not been described yet.

Recommendations for improvement

- Use of additional criteria for the promotion of excellence by the teachers is recommended.
- The use of additional criteria of excellence for the selection of the new employees and promotions of faculty staff is recommended.

Quality grade

Satisfactory level of quality

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

Analysis

The KUAS provides opportunities for improvement of teaching competences by using the opportunity for international networking and mobility, which are primarily realized

through the Erasmus + mobility programme. However, the use of mobility programs is minimum.

The student satisfaction surveys and teaching competences survey have been done. However, there is no evidence that students are informed about analyses and results of student surveys. Furthermore, the corrective measures and recommendations for improving teaching competencies in the case of unsatisfactorily graded teachers have not been applied.

Although KUAS encourages teachers to publish scientific and professional articles in journals of high recognition and citation, by financing the costs of publishing articles, number of high-quality professional and/or scientific publication is low.

KUAS also pays the costs of the selection process for teachers to obtain scientific and scientific-teaching grades. Teacher advancement is also achieved by financing the costs of their doctoral studies.

The opportunity for free academic year (sabbatical) has never been used. According to the self-evaluation report, teachers are provided with necessary resources for the preparation and application of project proposals, in terms of funding external consulting services for the preparation of project applications, as well as administrative support from the Office for International Cooperation and project application and implementation.

The participation (or leadership) in competitive national and international projects is evident on individual base. KUAS is successful participation in the professional projects with industry and EU funded projects for the capacity building. Teachers participate in international conferences and workshops. They are also involved in international and national networks.

Recommendations for improvement

- KUAS should formalize the procedure for actions based on the results on student satisfaction surveys.
- To encourage more the use of mobility programs especially for younger teachers; this may also increase the possibilities to participate in the future competitive international and national research projects.
- Rewarding programs for participation in international research competitions should be applied.
- To formalize individual annual development plan for each employee and analyse the realization

Quality grade
Satisfactory level of quality

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

Analysis
The development of the infrastructure is in line with the strategic goals of the University. Space, equipment and entire infrastructure have been appropriate and satisfactory for the implementation of scientific and professional activities. KUAS has been very successful in implementation of infrastructural projects mostly co-financed by the European Regional Development Fund. These projects enabled new spaces and equipment for the teaching process, professional and scientific research. Furthermore, KUAS used the opportunity to expand infrastructure based on the position and to get additional buildings from the state.

The University has specialized teaching cabinets and different laboratories and the brewing process practicum. During the site visit, it was evident that the biology and chemistry laboratories have completely new instrumentation and brewing practicum has been enlarged ensuring implementation of modern technological processes.
Students have been working in small groups in the laboratory, which is very good to achieve learning outcomes.

According to the self- evaluation report, KUAS has 4 IT classrooms with a total of 84 computers and classes are held by using specialized software packages. Teachers and students are very satisfied with the spatial resources for study and student activities.

Recommendations for improvement
- To provide more space for students where they can spend time between lectures and training

Quality grade
High level of quality

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

Analysis

In the self-evaluation report the old library has been described. However, the panel was able to visit new library already relocated in the main building. The infrastructural project enables the renovation of the attic with large surface area and reading room for students. The library equipment meets the standard, which is demanded for a high quality of study conditions for the students. It provides enough space and infrastructure for learning needs and preparing the exams.

According to self-evaluation report, the library also contains a collection of the students' final papers and digital collection of the graduates' final papers which are entered into DABAR – System of digital academic archives and repositories of final papers of all institutions of higher education. The library is subscribed to different national and international professional journals. Online access to publication resources is provided mostly by National and University Library in Zagreb and Ministry of Science and Education.

According to the self-evaluation report, there is sufficient literature available for learning. Nevertheless, students are not completely satisfied with library literature, based on analyses of Student surveys and the interviews during site visit. For some courses adequate number of copies has not been provided and some books are very old, for example for courses in hospitality management and business administration programme.

Recommendations for improvement

- To provide an adequate number of copies for all studies
- To revise and refresh literature for courses

Quality grade

Satisfactory level of quality

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

Analysis

Financial sustainability and efficiency are evident. KUAS manages its financial resources transparently and appropriately. According to self-evaluation report KUAS earns income from multiple sources that could be divided into state budget income, personal income and the income from EU and RC funds. The project funds intended for the reconstruction of the main building and promotion of science and research capacities of KUAS. Additional sources of funding are provided by tuition fees from full-time and part-time students and cooperation with local businesses and the community. KUAS uses this income for personal growth and development e.g., organising field courses, promotion of conditions of executing classes in laboratories and exercises, financing professional

training of the teaching and nonteaching staff and promoting professional and scientific work of the teaching staff (international science and professional conferences). KUAS regularly prepares an annual financial report. Several reports have been provided to the expert panel.

Recommendations for improvement

- None

Quality grade

High level of quality

## V. Professional and/or scientific activity

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

Analysis

Being a university of applied sciences, KUAS has historically been focused more on teaching and professional activities than science, nevertheless, the activity benchmarks in science have also been growing in the recent periods. KUAS does support such a development by a number of active measures.

The number and impact of scientific publications should be increased given the size and areas of competence of KUAS, as the number of publications per employee and per year could be higher. This is recognized by KUAS and this aspiration is also stressed in the Development Strategy of KUAS.

As an example, according to the KUAS self-evaluation, in the four-year period until 2019, 45 papers were listed in SCOPUS (approx. one quarter of which in engineering) and the number of yearly citations reached 120 along with the h-index of 11 (WOS). There has been a total of 143 peer-reviewed papers of KUAS staff and 494 citations (WOS) in the last five years. In 2019, 49 KUAS employees were enrolled in the Register of Scientists.
In terms of scientific and professional projects, the KUAS self-evaluation report also indicates 4 EU scientific projects with significant grants (ERDF, in two of which KUAS is the lead institution), and a number of projects with ESF, IPA, as well as mobility grants. KUAS staff have been involved in organizing committees of 6 conferences and act in editorial boards of 7 journals.

During the visit the panel was also informed about a number of direct cooperation projects with the local and regional industries, beyond what was presented in the self-evaluation report.

Some of the obstacles which limit the potential of KUAS from reaching a higher level of activity in professional and/or scientific activity include:

- The teachers at universities of applied science have a much higher teaching workload than the teaching staff at universities, hence there is less time for research.
- According to national regulations there is little distinction between lesser-impact conference papers and publications in high-impact scientific journals in the promotion procedure to higher positions. Attending conferences is supported as KUAS pays for the expenses. KUAS also covers due PhD costs.
- There is a reward system that takes into account publishing activity, while a new, enhanced draft is in development, planned to promote high-quality publications.

Some of the impact factors related to the current status related to equipment include:

- Much of the high-end and expensive lab equipment comes to KUAS by virtue of successful applications for EU grants, where not all groups at KUAS are equally successful. As a consequence, there seems to be a somewhat uneven development of different groups, as not all of them have the state-of-the-art equipment for R&D.
- Procedures for applying and financing new lab equipment from internal (own) funding is bottom-up, initiated from individual teachers and subsequently departments: priorities, relevance for teaching, relevance for science and applied research are combined and taken into account in decision making.
- A major disadvantage is the teachers' high overload and absence of internally mentored doctoral students or post-docs to act as the key R&D workforce, which is hard to compensate

The quality and importance of scientific activity varies by departments and in the fields of business and hospitality the clear directions and study supportive research activities are not thought out too profoundly.

### Recommendations for improvement

- The strategy for enhancing scientific and professional work accompanied by well specified action plans should be implemented and monitored. It should also indicate key development areas such that equipment and staff can be focused in a sustainable way towards recognized excellence in those areas, having an impact both in research and teaching. It should specify the current (reference) as-is performance indicators, to-be target values, structured quantitative benchmarks,

milestone definitions, responsibilities for monitoring, feedback-based corrective actions.

- An intrinsic weakness of KUAS seems to be a relatively low number of top students who could be engaged in professional and scientific projects. KUAS should develop instruments to attract them, perhaps by offering attractive scholarships in cooperation with interested companies.
- The teaching staff reward system could be further enhanced towards promoting scientific publications in high-impact journals.
- The teaching workload (currently high overload for many) should be reduced towards the recommended standard norms to free more time for scientific and professional activities.
- Promising groups with potential for advanced scientific and professional activities in the key development areas of KUAS should perhaps be given certain priority in acquiring equipment from own funds.
- Joint projects and other forms of cooperation with local and regional companies should be stimulated and rewarded additionally. Options for hiring young researchers within professional and scientific projects should perhaps be supported by co-financing from own funds where feasible.
- The economic council should be made operational to improve and facilitate professional cooperation with regional companies.
- Beyond the regional development agency, KUAS should be increasingly involved with all regional authorities and associated agencies to promote cooperation and technology transfer. Joint mentorships should be increasingly used as an efficient instrument to upgrade cooperation.
- Professional lifelong learning packages should be developed and offered to companies to develop their respective competences in new technologies, where needed.
- Moreover, KUAS has already recognized many of these recommendations, and the panel wish to support these efforts towards a systematic development process.

Quality grade

Satisfactory level of quality

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

## Analysis

The structure of scientific and professional activities per department, group and individual staff shows significant variation with above-average activity of some staff and groups. KUAS should analyse ways to harmonize the respective performance across key KUAS development areas and how to achieve higher relevance and impact. Based on the interview with the employers, could be highlighted that the social partners value the cooperation with the KUAS and several of the interviewees said, that if they have project or research etc ideas they will approach to the KUAS and the KUAS's teachers and will find the partners for them. This is a high appreciation from the industry.

Some factors relevant for the current status of scientific and professional activities at KUAS include:

- Rather different situation across departments
- Several groups are very successful in acquiring EU-funded projects and examples were presented where this led to establishing well-equipped labs
- The self-evaluation report does not describe cooperation with local companies sufficiently, since a number of additional examples were presented to the panel during the visit. Examples include reverse engineering lab in mechanical engineering, usage of CNC equipment, recurrent service of providing strength test of material probes to local companies, which seems very promising and indicates potential. The Center for mechatronics offers a number of advanced services for the industries (set of promotional leaflets with clearly explained potential services), as a spin-off from mechanical engineering
- There are a number of examples of cooperation with companies and institutions in terms of internships, mentorships and joint lab usage, all of which reinforces the role of KUAS. Examples include wildlife and nature protection, food technology, beer brewery, etc.
- Based on feedback from companies and stakeholders and KUAS internal initiatives, new study programmes are being developed: technical informatics, food technology and entrepreneurship
- There is a project office tracking open calls

Recommendations for improvement

- The currently non-operational Economic council should help in regional professional networking, consequently towards acquiring more R&D and commercial projects with local and regional industries

- A significant problem seems to be a low number of top-quality students to be involved in projects. KUAS must find ways to attract students with better up-front knowledge and high motivation who could be attracted to R&D in the future.

- Evaluation of lifelong learning programs shows that there may be interest beyond generic skills (advanced professional courses) in engineering and other departments. Positive experience with 'curative herbs' and 'graphic design' was indicated.

- Improved assistance should be received from the local Chamber of commerce (HGK) to acquire more projects for the local industry and better links

Quality grade
Satisfactory level of quality

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

Analysis
In terms of recognition of scientific activity, the panel has reflected some respective figures form the KUAS report under the standard 5.1 of this report, which are also relevant for 5.3.

There is evidence of professional activity and achievements of KUAS on several levels. The respective list of professional projects in the self-evaluation report and analytic supplement reveals a number of scientific and professional projects at EU and national level. Nevertheless, there seems to be space for growth.

In addition, the meetings with the alumni and with external stakeholders provides direct feedback on examples of direct local and regional cooperation:

- Joint usage of IT application for safety at work, seminars and student practice with Javna ustanova Karlovac and cooperation in project 'Snaga vještina', education for coffee supplements for company Franck, barista training, recurring material strength tests for company Oneproduct, cooperation with City museum for cultural heritage preservation, different types of cooperation with company Infosys, field training and internships with National park Plitvice, agreement for cooperation, commercial R&D project, nature protection projects with Institute of applied ecology, mentorships and potential projects with company HS produkt, cooperation with Zmajska pivovara brewery, cooperation on tools and programs with company Inženjering Zagreb, etc.

Most of these companies plan to employ more KUAS graduates and extend professional cooperation.

Recommendations for improvement

- Same recommendations as in standards 5.1 and 5.2

– Wider publication of the projects and/or academic research results (e.g. popularisation in social media, news in umbrella organisations webpages) could support the reputation and recognition of the KUAS among different stakeholders.

Quality grade

Satisfactory level of quality

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

Analysis

Professional cooperation projects (R&D) and scientific activities as well as resulting publications generally improve teaching. Teachers extend their know-how to new research cognitions and gain experience in terms of application of R&D to real-world projects. Beyond such professional development of teachers, another key aspect is the fact that several key labs at KUAS were enhanced by state-of-the-art equipment via EU project grants, where such equipment is subsequently also used in teaching.

Professional cooperation with companies also enables the use of KUAS or companies' labs and equipment in teaching, while also potentially generating direct contacts between students and their potential employers. The same applies to internships and lifelong learning as specific formats of the teaching process.

All of the above is present at KUAS with obvious potential for further development.

Recommendations for improvement

- Same recommendations as in standards 5.1 and 5.2

– Relevant results of the projects and scientific activities must be implemented into the course materials and studies to provide students the newest knowledge.

Quality grade

Satisfactory level of quality

# APPENDICES

**1. Quality assessment summary - tables**

**2. Site visit protocol**

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

| *Quality grade by standard* | | | | |
|---|---|---|---|---|
| *I. Internal quality assurance and the social role of the higher education institution* | *Unsatisfactory level of quality* | *Minimum level of quality* | *Satisfactory level of quality* | *High level of quality* |
| 1.1. The higher education institution has established a functional internal quality assurance system. | | X | | |
| 1.2. The higher education institution implements recommendations for quality improvement from previous evaluations. | | | X | |
| 1.3. The higher education institution supports academic integrity and freedom, prevents all types of unethical behaviour, intolerance and discrimination. | | | X | |
| 1.4. The higher education institution ensures the availability of information on important aspects of its activities (teaching, professional and/or scientific and social role). | | | X | |
| 1.5. The higher education institution understands and encourages the development of its social role. | | | | X |
| 1.6. Lifelong learning programmes delivered by the higher education institution are aligned with the strategic goals and the mission of the higher education institution, and social needs. | | X | | |

| *Quality grade by standard* | | | | |
|---|---|---|---|---|
| *II. Study programmes* | *Unsatisfactory level of quality* | *Minimum level of quality* | *Satisfactory level of quality* | *High level of quality* |
| 2.1. The general objectives of all study programmes are in line with the mission and strategic goals of the higher education institution and the demands of the labour market. | | | X | |
| 2.2. The intended learning outcomes at the level of study programmes delivered by the higher education institution are aligned with the level and profile of qualifications gained. | | X | | |
| 2.3. The higher education institution provides evidence of the achievement of intended learning outcomes of the study programmes it delivers. | | | X | |
| 2.4. The HEI uses feedback from students, employers, professional organisations and alumni in the procedures of planning, proposing and approving new programmes, and revising or closing the existing programmes. | | | X | |
| 2.5. The higher education institution ensures that ECTS allocation is adequate. | | X | | |
| 2.6. Student practice is an integral part of the study programmes. | | | X | |

| *Quality grade by standard* | | | | |
|---|---|---|---|---|
| *III. Teaching process and student support* | *Unsatisfactory level of quality* | *Minimum level of quality* | *Satisfactory level of quality* | *High level of quality* |
| 3.1. Admission criteria or criteria for the continuation of studies are in line with the requirements of the study programme, clearly defined, published and consistently applied. | | | X | |
| 3.2. The higher education institution gathers and analyses information on student progress and uses it to ensure the continuity and completion of study. | | | X | |
| 3.3. The higher education institution ensures student-centred learning. | | | X | |
| 3.4. The higher education institution ensures adequate student support. | | X | | |
| 3.5. The higher education institution ensures support to students from vulnerable and under-represented groups. | | | | X |
| 3.6. The higher education institution allows students to gain international experience. | | | X | |
| 3.7. The higher education institution ensures adequate study conditions for foreign students. | | X | | |
| 3.8. The higher education institution ensures an objective and consistent evaluation and assessment of student achievements. | | X | | |
| 3.9. The higher education institution issues diplomas and Diploma Supplements in accordance with the relevant regulations. | | | | X |
| 3.10. The higher education institution is committed to the employability of graduates. | | | X | |

| *Quality grade by standard* | | | | |
|---|---|---|---|---|
| *IV. Teaching and institutional capacities* | *Unsatisfactory level of quality* | *Minimum level of quality* | *Satisfactory level of quality* | *High level of quality* |
| 4.1. The higher education institution ensures adequate teaching capacities. | | X | | |
| 4.2. The higher education institution ensures appropriate quality of external associates. | | | | X |
| 4.3. Teacher recruitment, advancement and re-appointment is based on objective and transparent procedures, which include the evaluation of excellence | | | X | |
| 4.4. The higher education institution provides support to teachers in their professional development. | | | X | |
| 4.5. The space, equipment and the entire infrastructure (laboratories, IT service, work facilities etc.) are adequate for the delivery of the study programmes and ensure the achievement of intended learning outcomes and the implementation of professional and/or scientific activity. | | | | X |
| 4.6. The library and library equipment, as well as access to additional resources ensure the literature necessary for ensuring high-quality of study and scientific and teaching activity. | | | X | |
| 4.7. The higher education institution rationally manages its financial resources. | | | | X |

| *Quality grade by standard* | | | | |
|---|---|---|---|---|
| *V. Professional and/or scientific activity* | *Unsatisfactory level of quality* | *Minimum level of quality* | *Satisfactory level of quality* | *High level of quality* |
| 5.1. Teachers and associates employed at the higher education institution are committed to the achievement of high quality and quantity of professional and/or scientific activity. | | | X | |
| 5.2. The higher education institution proves the social relevance of its professional and/or scientific research and transfer of knowledge. | | | X | |
| 5.3. Professional and/or scientific achievements of the higher education institution have been recognized in the regional, national and international context. | | | X | |
| 5.4. Professional and/or scientific activities and achievements of the higher education institution improve teaching. | | | X | |

## SITE VISIT PROTOCOL

***Education of the Expert Panel in virtual form***

| | **Tuesday, 19th January 2021** |
|---|---|
| **10:55 -11:00 (CET)** | Joining the ZOOM meeting via link |
| **11:00 – 13:00** | • Presentation of ASHE<br>• Overview of the higher education system in Croatia<br>• Re-accreditation procedure<br>• Standards for the evaluation of quality<br>• How to write the Final report |

***Preparation of the Expert Panel members for the meetings with HEI in virtual form***

| | **Monday, 25th January 2021** |
|---|---|
| **11:55 -12:00 (CET)** | Joining the ZOOM meeting via link |
| **12:00 – 15:00** | Preparation of the Expert Panel members for the meetings with HEI (discussion on the Self-evaluation report and supporting documents, writing open questions for the meetings ) |

**Preliminary site-visit of Expert Panel members to the HEI**

| | **Tuesday, 26th January 2021** |
|---|---|
| **9:50– 10:00 (CET)** | Joining the part of the Expert Panel members to the ZOOM meeting via link |
| **10:00 – 11:00** | Meeting of Expert Panel members with the Dean and Vice-Deans |
| **11:00– 11:10** | *Break* |
| **11:10 – 12:10** | Meeting of Expert Panel members with the Quality Assurance Committee and Office for Quality Assurance |
| **12:10 – 14:00** | **Document analysis** |
| **14:00 – 15:00** | Working Lunch |
| **15:00– 17:00** | **Tour of the Karlovac UAS** (classrooms, teaching cabinets, practicums, IT classrooms, laboratories, library, student services) **and participation in teaching classes** |
| **17:00 –** | Return of Croatian Expert Panel members |

**First day of re-accreditation in virtual form**

| | **Wednesday, 27th January 2021** |
|---|---|
| **10:25 – 10:30 (CET)** | Joining ZOOM meeting via the link |
| **10:30 – 11:00** | Meeting of Expert Panel members, discussion on observations and impressions from the preliminary site-visit, preparation for the meetings with HEI stakeholders |
| **11:00 – 11:45** | Meeting of Expert Panel members with heads of departments |
| **11:45 – 12:00** | *Break* |
| **12:00 – 13:00** | Meeting with full-time employed teachers, except those in managerial positions |
| **13:00 – 14:00** | *Break* |
| **14:00– 14:30** | Meeting with assistants |
| **14:30 – 14:40** | *Break* |
| **14:40 – 15:30** | Meeting with external lecturers |
| **15:30 – 16:00** | *Internal meeting of the Expert Panel members – comment on the first day and preparation for the second day* |

**Second day of re-accreditation in virtual form**

| | **Thursday, 28th January 2021** |
|---|---|
| **9:00 – 9:30 (CET)** | Joining ZOOM meeting via the link and a short internal meeting of the Expert Panel members |
| **9:30 – 10:10** | Meeting with the vice dean for education |
| **10:10 – 10:20** | Break |
| **10:20 – 11:00** | Meeting with:<br>• Head of the Office for international cooperation and projects<br>• ECTS coordinator<br>• Erasmus coordinator<br>• Head of the library<br>• Student Practice Managers<br>• Dean's Adviser for Lifelong Learning<br>• Office for Career Guidance and Student Support (new) |

| | |
|---|---|
| | • Center for Support of Students with Disabilities |
| **11:00 – 11:15** | *Break* |
| **11:15 – 12:15** | Meeting with students |
| **12:15 – 13:15** | *Break* |
| **13:15 – 14:00** | Meeting with Alumni (former students who are not employed by the HEI) |
| **14:00 – 14:15** | Break |
| **14:15 – 14:45** | Organisation of an additional meeting on open questions, if needed |
| **14:45 – 15:15** | Internal meeting of the Expert Panel members – comment on the second day and preparation for the third day |

**Third day of re-accreditation in virtual form**

| | **Friday, 29th January 2021** |
|---|---|
| **9:40 – 10:00 (CET)** | Joining ZOOM meeting via the link and a short internal meeting of the Expert Panel |
| **10:00 – 10:45** | Meeting with external stakeholders -representatives of professional organisations, business sector/industry sector, professional experts, non-governmental organisations |
| **10:45 – 11:00** | *Break* |
| **11:00 – 12:00** | Meeting with the vice dean for professional and scientific work and international cooperation, research active staff and the Heads of scientific and professional projects |
| **12:00 – 12:30** | *Internal meeting of the Expert Panel members* |
| **12:30 – 13:00** | Organisation of an additional meeting on open questions, if needed |
| **13:00 – 13:15** | Exit meeting with the Dean and Vice-Deans |
| **13:15 – 14:15** | Lunch break |
| **14:15 –** | Internal meeting of the Expert Panel members – assessment according to quality standards |

## SUMMARY

KUAS has many advantages, such as the level of cooperation with the local community, support to students from vulnerable and under-represented groups, use of finances, and the infrastructure in place for the delivery of the study programmes. As for detected disadvantages, they include a lack of an internal quality assurance system, some problems in teaching capacity, support for foreign students and ECTS allocation.

The panel feels that the establishment (or improvement) of a dedicated quality management system would go a long way towards strengthening these advantages and remedying disadvantages as a whole. Quality management should be applied especially on "minimum" level criteria and disadvantages presented, such as policies on general feedback, the experience of foreign students, recognition of prior learning and uniform procedures for teachers, e.g., when giving and receiving feedback.

Encouragingly, from the dozens of criteria, the panel did not find any that were deemed unsatisfactory. The general atmosphere when discussing with for example the management demonstrated the will and capacity for constant improvement (another reference to quality management)! In summary, the panel feels that KUAS has currently a good standing and has what it needs to improve and impress in the future.