



**REPORT**  
**of the Expert Panel**  
**on the**  
**RE-ACCREDITATION OF**  
**University of Applied Health Sciences**

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## INTRODUCTION

This report on the re-accreditation of the University of Applied Health Sciences in Zagreb was written by the Expert Panel appointed by the Agency for Science and Higher Education, on the basis of the self-evaluation of the institution and supporting documentation and a visit to the institution.

Re-accreditation procedure performed by the Agency for Science and Higher Education (ASHE), a public body listed in EQAR (European Quality Assurance Register for Higher Education) and ENQA (European Association for Quality Assurance in Higher Education) full member, is obligatory once in five years for all higher education institutions working in the Republic of Croatia, in line with the Act on Quality Assurance in Higher Education.

The Expert Panel is appointed by the ASHE Accreditation Council, an independent expert body, to perform an independent peer-review-based evaluation of the institution and their study programs.

The report contains:

- a brief analysis of the institutional advantages and disadvantages,
- a list of good practices found at the institution,
- recommendations for institutional improvement and measures to be implemented in the following period (and checked within a follow-up procedure), and
- detailed analysis of the compliance to the Standards and Criteria for the assessment of quality of polytechnics and colleges

The members of the Expert Panel were:

- Dr Ruud Heijnen, Zuyd University of Applied Sciences, The Netherlands (panel chair)
- Ms Nicola Clark, The University of Hull, United Kingdom of Great Britain and Northern Ireland
- Prof. Inga Millere, Faculty of Nursing, Riga Stradins University, Republic of Latvia
- Nikša-Siniša Matas, M.A. in Nursing, Clinical Hospital Split, Republic of Croatia
- Nicole Vitez, student, Technical College in Bjelovar, Republic of Croatia

In the analysis of the documentation, site visit and writing of the report the Panel was supported by the ASHE staff:

- Maja Briški, coordinator
- Goran Briški, translator

During the visit to the Institution the Expert Panel held meetings with the representatives of the following groups:

- The Management;
- The Working Group that compiled the Self-Evaluation and representatives of the Office for Quality;
- The students, i.e., a self-selected set of students present at the interview;
- Teachers
- The Heads and Coordinators of study programmes
- Representatives of the Office for Professional and Scientific Research
- Teaching assistants
- Representatives of offices for mobility, international cooperation and cooperation with collaborating institutions and advancement of cooperation with scientific institutions etc.

The Expert Panel also had a tour of the library, IT classrooms, student register desk, and the classrooms at the University of Applied Health Sciences in Zagreb, where they held a brief question and answer session with the students and representatives who were present. Panel also visited workplaces for practical teaching.

Upon completion of re-accreditation procedure, the Accreditation Council renders its opinion on the basis of the Re-accreditation Report, an Assessment of Quality of the higher education institution and the Report of Fulfilment of Quantitative Criteria which is acquired by the Agency's information system.

Once the Accreditation Council renders its opinion, the Agency issues an Accreditation Recommendation by which the Agency recommends to the Minister of Science, Education and Sports to:

1. **issue a confirmation** to the higher education institution, which confirms that the higher education institution meets the requirements for performing the higher education activities or parts of activities, in case the Accreditation Recommendation is positive,

2. **deny a license** for performing the higher education activities or parts of activities to the higher education institution, in case the Accreditation Recommendation is negative, or

3. **issue a letter of recommendation** for the period up to three (3) years in which period the higher education institution should remove its deficiencies. For the higher education institution the letter of recommendation may include the suspension of student enrolment for the defined period.

The Accreditation Recommendation also includes an Assessment of Quality of the higher education institution as well as recommendations for quality development

## SHORT DESCRIPTION OF THE EVALUATED INSTITUTION

NAME OF HIGHER EDUCATION INSTITUTION:

University of Applied Health Sciences in Zagreb

ADDRESS:

Mlinarska cesta 38, 10000 Zagreb

NAME OF THE HEAD OF HIGHER EDUCATION INSTITUTION:

Aleksandar Racz, PhD, college professor

ORGANISATIONAL STRUCTURE (e.g. chairs, departments, centres)

The internal structure of the University of Applied Health Sciences is regulated in detail by the Regulation on the Internal Organisation of the University, which was adopted by the Governing Council at the proposal of the University's Expert Council, and with the consent of the founders. The study programmes are the University's organisational units, which organize and conduct the professional studies at the University. Within the scope of the University of Applied Health Sciences, there are undergraduate professional studies and specialist graduate professional studies in accordance with the accreditation of the Ministry of Science, Education and Sports. There are six undergraduate professional study programmes at the University of Applied Health Sciences. Teaching at the University of Applied Health Sciences is performed and organised by the departments which are teaching organisational units. Therefore, the departments are the fundamental organisational units of teaching, professional and scientific activities of the University of Applied Health Sciences. The University of Applied Health Sciences has a total of 32 departments. Practical training is carried out at the teaching sites. The teaching sites are the collaborative health care and related institutions. The Governing Council, Expert Council, Dean and other professional and advisory bodies represent the University's governing bodies. The programmes are managed by the Study programme Council and the Head of Study programme. The University's Governing Council comprises five members, three of which are appointed by the Ministry of Science, Education and Sports, one by Expert Council and one by the Assembly of Employees, comprising all employees of the University of Applied Health Sciences. The Dean manages the University within the framework specified by the Statute and the law, and is the University's head and the leader. The Dean is supported by the Vice-dean and advised by the Collegium of Deans. The Expert Council of the University of Applied Health Sciences comprises the Dean, Vice-deans, Heads of Study Programs, representatives of the Heads of Departments, representatives of lecturers and assistants, and student representatives. In addition to the Departments, the University of Applied Health Sciences has eight Administrative Offices, each with their own specific tasks and objectives and coordinated by the Head of the Administrative Offices.

LIST OF STUDY PROGRAMMES (and levels)

Undergraduate professional study programs:

1. Physiotherapy
2. Laboratory Medical Diagnostics
3. Radiological Technology
4. Occupational Therapy
5. Environmental Health Engineering
6. Nursing

Specialist graduate professional study programs:

1. Management in Nursing
2. Public Health
3. Physiotherapy
4. Environmental Health Engineering
5. Clinical Nursing
6. Psychiatric Nursing

NUMBER OF STUDENTS (part-time/full-time/final-year)

Full time students – 1083

Part time students – 1752

(Data from MOZVAG)

NUMBER OF TEACHERS (full-time, external associates)

Full time teachers – 53.88

External associates – 7.20

(Data from MOZVAG)

NUMBER OF SCIENTISTS (doctors of science, elected to grades, full-time)

Number of full time employed staff selected to a scientific-teaching position – 8

(Data provided in Self-evaluation)

TOTAL BUDGET (in kuna): 39,132,194.00

MSES FUNDING (percentage): 40 %

OWN FUNDING (percentage): 60 %

SHORT DESCRIPTION OF HIGHER EDUCATION INSTITUTION:

The University of Applied Health Sciences was established in 1966 by the decision of the founder – the Association of Croatian Health Institutions - under the name of the Advanced School of Nursing and Health Technicians. University of Applied Health Sciences has 2835 students (data provided in MOZVAG) and delivers 12 programmes in Physiotherapy, Laboratory Medical Diagnostics, Radiological Technology, Occupational Therapy, Environmental Health Engineering and Nursing at undergraduate professional level and Management in Nursing, Public Health, Physiotherapy, Environmental Health Engineering, Clinical Nursing and Psychiatric Nursing Specialist at graduate professional level.

From its establishment until 1998, the duration of the study programmes for all courses was two years, with the curricula directed towards the acquisition of theoretical knowledge and practical skills, with an emphasis on mastering the practical skills needed for everyday work in health care practice. The beginnings of the Advanced School of Nursing and Health Technicians were modest; the School was located at the rented premises of the Centre for the Protection of Mothers and Children, in Klaićeva Street, where the institution had been allocated premises covering about 20 square metres. Teaching staff was engaged solely on a part-time basis and came mainly from the School of Medicine, University of Zagreb. In 1970, the premises at Gajeva street 49/1, covering approx. 140 square meters were purchased using the institution's own funds, and this initial capital outlay using a long-term loan led to the purchase of the current building accommodating the University of Applied Health Sciences at Mlinarska cesta 38, Zagreb. University of Applied Health Sciences introduced the first level of the Bologna process four years earlier than all other related higher education institutions. The Croatian Government adopted the Ordinance on Amendments to the Ordinance on the Establishment of the University of Applied Health Sciences, which entered into force on 25 March 2005 upon its publication in the Official Gazette (OG 39/2005), and after which the School of Health Studies in Zagreb was renamed into the University of Applied Health Sciences.



## CONCLUSIONS OF THE EXPERT PANEL

### ADVANTAGES OF THE INSTITUTION

1. The strategic plan, the mission and vision are clearly worked out, visible and adjusted to the society needs.
2. All staff members express a shared vision on higher education that is in line with the HEI strategy, mission and vision.
3. This institution clearly identifies itself as a higher education institution and a scientific organization.
4. The institution has an effective quality system.
5. The staff appears to be well motivated and hardworking and open for new challenges in work and personal education. All lecturers and associates of the University of Applied Health Sciences are encouraged to continue their education at higher levels.
6. The HEI has achieved financial independence within the limitations of the budget.

### DISADVANTAGES OF THE INSTITUTION

1. Competency based education is not reflected by the institution's organization.
2. Apparently not all lecturers are able to integrate their subject into a competency based curriculum. Teaching therefore varies from subject based to integrated, practice based learning.
3. Generally the English languages competencies of the staff members are insufficient.
4. The HEI faces real financial problems to expand and improve the quality (due to governmental restrictions) and staff capacity problems.
5. The theoretical and the practical assessment procedures need to be improved.
6. The library is insufficiently equipped with (e-)books and journals.
7. The ratio between students and scientific educated lectures is not in good; especially for Nursing and Physical therapy, the numbers of M and PhD educated lecturers are too low.
8. The institution struggles with shortage of space and therefore offers her activities on several locations. Not all locations offer equal facilities.

## FEATURES OF GOOD PRACTICE

1. The institutional strategy incorporates the goal to become a full department of the Zagreb University.
2. Free psychological counselling for students.
3. The Alumni Club, though young, is big and active.
4. Beautiful equipped and effective cabinet of Clinical Skills, especially with the integration of available software on-Pad.

# RECOMMENDATIONS FOR IMPROVEMENT

## 1. Management of the Higher Education Institution and Quality Assurance

- The HEI is recommended to reconsider the organisational structure in the perspective of competency based education (instead of subject base education)
- Quality policy should become a mainstream activity for all staff members; everyone should feel responsible for quality regardless of any system of quality control
- The quality of teaching should be operationalized based on the mission and vision of the HEI, leading to own standards. All staff members should accept and work according to these standards

## 2. Study Programmes

- The HEI must align its strategy on recruitment with employment of its graduates.
- To harmonise the learning outcomes of the study programmes with the practical elements of the programme requirements.
- To ensure the practice elements of the programme are assessed appropriately by ensuring there are sufficient number of mentors available to undertake the assessment on an individual basis.
- To revise the number of examinations undertaken at any one time to provide a more measured approach to learning and assessment of that learning.
- To align the library resource provision with the academic learning required for the study programme.

## 3. Students

- It is recommended to introduce additional subject-specific testing and motivational interviews with candidates.
- It is recommended to expand the range of extra-curricular content in order to involve students of other study programmes as well. HEI should also allow for students to organise their own extra-curricular activities, in order to develop organisation and management skills. Securing additional space (facilities) for student activities is also recommended.

- It is recommended to provide students with the opportunity to review their graded exams and re-sit the exams. In addition, information should be provided on the conditions for taking the exam.
- It is recommended to introduce an info/hotline services that would provide answers to specific questions to all interested individuals
- It is recommended to introduce statistical monitoring with regard to reported problems and the success in their resolution
- It is recommended to provide students with access to results of surveys on quality of study, and to encourage students to actively participate in improving quality of study at the University of Applied Health Sciences

#### **4. Teachers**

- It is recommended to increase the number of highly qualified teachers, especially in Nursing and Physiotherapy.
- University of Applied Health Science is encouraged to develop its institution as a department of University and to get the opportunity to develop and promote the scientific activities that will raise the quality of education.
- University of Applied Health Science is encouraged to develop full time teacher's employment to achieve optimal student and full-time teacher's ratio.

#### **5. Scientific and Professional Activity**

- The HEI is recommended to further develop the research activities
- The HEI is recommended to continue with its strategy to attain the required number of researchers
- Research activities and publishing in the field of Nursing should be encouraged
- The 2014 Work Plan for research should be actively executed and monitored

#### **6. International Cooperation and Mobility**

- The HEI should carefully search for better opportunities to facilitate teachers mobility
- Staff members should be encouraged and facilitated to improve their competencies in English language
- The institute is recommended to actively promote international cooperation among all staff members and give priority to its internationalization plan

## **7. Resources, Administration, Space, Equipment and Finance**

- It is recommended that the HEI should rent or buy space, or plan to build a building which would make the organization of theoretical and practical classes on one locality possible.
- It is recommended to continue with furnishing the laboratory with equipment for long-term use (manikins, devices for demonstration etc.) and consumables.
- Further implementation of positive practice of using electronics, where active learning based on real life simulation is possible
- Realize the availability of a larger number of computers, due the growing role of computer in learning
- It is necessary to ensure enough capacity and quality regarding the number of resources in the library
- It is necessary to ensure a larger number of computers and information available in an electronic form

# DETAILED ANALYSIS OF INSTITUTIONAL COMPLIANCE TO THE STANDARDS AND CRITERIA FOR RE-ACCREDITATION

## Chapter 1: Institutional management and quality assurance

### 1.1.

A clear strategic plan is available; all relevant stakeholders are involved in the process of building up a strategic plan. Also within the HEI, all relevant units and staff members were included in the development of the mission and vision. The strategic plan is clearly adjusted to the society needs, however, the HEI faces real financial limitations (due to governmental restrictions) and staff capacity problems. Too few master (or higher level) educated lecturers in non-medical areas are available on the Croatian labour market. Operational plans for all departments (educational organizational units) are available and functioning; a careful designed, structured and operational Quality Assurance system controls the working of the strategic and operational plans and gives evidence for their effectiveness. The QA system is based on annual cycles.

Comparison of the strategic plan to other, compatible European institutions should be further elaborated. The institutional strategy incorporates the goal to become a full department of the Zagreb University; this objective is strongly supported by the visitation committee.

### 1.2.

The statute of the HEI and the internal organisational structure are clearly described and recognisable. In the mission and vision, the professional development of students is strongly emphasized. This implies a strong focus on generic competencies (as expressed in Dublin Descriptors); this strong relationship is not well recognisable and even seems to be threatened by the organisational structure where departments are dominant in the subject related content of all educational units. This structure could limit the attention for integration of knowledge and elevating knowledge to the required competency level for health professionals. For the current curricula, the management structure however seems to be effective, but as stated before, not in line with the higher level educational objectives for the future. The management has organised two conference meetings to try to involve everyone in defining the mission and vision and even after the first writing of the strategy, it was checked and debated several times. The HEI is steady on its way to implement the mission and vision and to adapt the organizational structures and processes.

### 1.3.

The study programmes are in line with the institutional mission. Within the external limitations, the HEI functions well in educating health professionals that are required for the labour market. All staff members express a shared vision on higher education that is in line with the HEI strategy, mission and vision.

### 1.4.

The HEI has developed a quality policy system including procedures to check the quality of all internal processes on a yearly basis. In 2013 the quality system was externally assessed and that evaluation has obviously led to a number of improvements. These changes are now being implemented and it's too early to expect full results at this stage. The committee recognises the improvements of the quality system however the effects are not yet visible but can be expected. All teachers are aware of the necessity to raise the quality of teaching. Teachers are motivated to improve their professional qualities, a respectable number goes to do doctoral studies and improve didactical competencies. One remarkable point was the disparity of the transparency of the organisation and participation of student in the quality system on one hand, and the dissatisfaction of relatively many students about the communication within the organisation.

### 1.5.

Monitoring the quality of the teaching system is apparently a relative new issue in this HEI. Though the system has been created and recently improved, the effects are not yet satisfying. Too many complaints about the examination system and the individual motivation and teaching competencies of lecturers. Much of the theoretical part of the curriculum content is based on the various contributing disciplines; integration of knowledge, skills and attitudes into professional competencies, should be further elaborated (into the direction of fully competency based education). Teachers are aware of the necessity to raise the quality of teaching. Generally, staff members are motivated to improve their professional qualities; a respectable number of the lecturers goes to do doctoral studies to improve professional and didactical competencies.

### 1.6.

The HEI has developed, during the last years a transparent and ambitious strategy to improve the research quality of the institute. Good attention is paid to the research competencies of staff members; this has been described in concrete annual plans (on team- and individual level, research budget etc.). Many challenges to cope with because funding of research activities remains problematic and the HEI has a disadvantaged position when compared to the university. Though the research tradition of this HEI is rather new, the ambitions and results are satisfying.

1.7.

A code of ethics exists and is recognisable in the attitude of the lecturers and other staff members. Monitoring systems are available and address issues of (un)ethical behaviour. The efficiency of these mechanisms appear to be according to standards.

## Chapter 2: Study programmes

2.1.

There are effective quality systems in place for monitoring and improving the programmes. The results of the implemented quality processes are available to all internal and external stakeholders and the HEI has prepared a strategy which defines measurable goals for quality assurance and quality indicators – The 2013-2017 Strategy of Quality Assurance at the University of Applied Health Science. The HEI considers quality assurance to be a continuous process that is integral to all its' activities and there has been considerable development of the quality system reflected in the internal evaluation reports undertaken by the Committee that has been set up.

2.2.

The maximum numbers of students are determined by the Ministry and are based on the need for individual health professionals in the health system. The institution must also adhere to the regulations on minimum requirements in terms of space, staff and medical-technical equipment. The HEI tries to recruit the high calibre students which are in accordance with the 2012-2020 National Strategy for the Development of Health Care to ensure there are a sufficient number of high-quality highly educated health professionals. The number of nurses is lower in comparison to other EU countries, with the additional potential and actual migration of Croatian health professionals to other countries. Employment opportunities exist, however a limit on employment has been imposed in the last two years which has resulted in many who have completed their studies becoming unemployed despite the number of health care workers being insufficient. Currently the institution recruits approximately one third who are funded by the Ministry, and two thirds who are self-funding. This is an increase in self-funded places in comparison to 2012 and 2013 recruitment numbers.

2.3.

The University of Applied Sciences is trying to achieve the Ministry's target ratio of 1 employed lecturer to 30 students for all programmes. The method for establishing the quotas is clearly documented, the available resources are clearly analysed and student pass rates and employment rates regularly scrutinised.



#### 2.4.

In 2012/13 study programmes were revised and the programme learning outcomes were determined and formulated. This activity included all heads of courses and comparisons were made with similar programmes in other countries. Nursing is a regulated profession and must comply with the EU Directives. Therefore the nursing curriculum is predominantly core for all Croatia which is approximately 80 – 90% of the whole programme. The elective courses are specific to the institutions and the local community. There is differentiation in year one of the programmes for students from the specialist schools and the gymnasia and the teachers feel that students are all at the same stage by year two of the programme.

The outcomes are deemed measurable by the teaching staff, though there is some disparity in the achievement of the learning outcomes in different hospital settings.

#### 2.5.

The programmes evidence a significant number of examinations, which the University of Applied Health Science believes ensures objectivity, and follows the recommendation of the Protocol in Holding Written Exams (2011). The students felt very strongly that this mode of assessment did not reflect the learning outcomes nor evidence their learning of the content of the programme. The students felt that the clinical aspect was not assessed sufficiently nor valued as much. The timing of the examinations within the programme also appeared to be an area of discontent. The students are observed in practice and must evidence competence with skills. The students feel that there are too many students to mentors in practice. The HEI has identified that there exists a need for drafting a dedicated Regulation on Assessment and this is currently in the acceptance phase.

#### 2.6.

There is a defined allocation of workload, content and teaching hours to ECTS. The HEI follows the assumption for student workload of 1 ECTS equates to 27 work hours.

#### 2.7.

For the development of the study programmes and specialist graduate studies, members approved by the Expert Council formed working groups which also included teachers, medical experts, professional associates and for Nursing the Croatian Chamber of Nurses. The courses are harmonised with the Bologna principles and guided by the EU directives. This alignment permits student mobility under the Erasmus regime.

This alignment could be more clearly benchmarked for transparency.

2.8.

Teachers adopt a variety of methods and include formal lectures, and clinical simulation. Fieldwork and clinical practice contribute significantly to the programmes. The students appreciate the clinical input from their mentors and lecturers, however many felt that there were too many students to each mentor who assessed them in practice, and the HEI acknowledge that there is an uneven workload for teachers with some programmes. The basics of e-learning are present in all courses.

2.9.

There are limited facilities, particularly with the library space and availability of books. The inclusion of e-books and extension of the range of online databases and journals would ensure that students have access to up –to date sources.

2.10.

The practical elements of the programmes undertaken by the students are in collaboration with institutions where there are education agreements and contracts in place. The heads of the courses work closely with the assistants and a schedule is prepared annually. Attendance and skill acquisition is recorded and verified. There are limited assistants in some areas as highlighted by the students. There appear to be a variety of opportunities to continue with further studies at specialist graduate level. The HEI has a long-term strategic goal to transform into a university department and then into a Faculty of Health studies to ensure the mobility of its students.

## Chapter 3: Students

3.1.

The University of Applied Health Sciences has clearly defined requirements for the enrolment to study programmes. We do, however, believe that these need to be stricter. From the discussion with students, the panel learned that students are not satisfied with the requirements for enrolment. They believe that these requirements are too permissive and that additional testing of knowledge specific to the profession should be introduced.

It is recommended to introduce additional subject-specific testing, and motivational interviews with candidates.

### 3.2.

University of Applied Health Sciences supports students in their extra-curricular activities, as evidenced by the fact that many of them are organised on the institutional level (conferences, humanitarian aids/charity work etc.). Majority of extra-curricular activities are related to the field of Nursing.

It is recommended to expand the range of extra-curricular content in order to involve students of other study programmes as well. HEI should also allow for students to organise their own extra-curricular activities, in order to develop organisation and management skills. Securing additional space (facilities) for student activities is also recommended.

### 3.3.

From the reviewed documentation and interviews conducted with students and teachers, it is evident that the University of Applied Health Sciences offers the possibility of counselling and mentoring to ensure personal and professional development of students. Mentoring, as we learned from students, is mainly related to students' final and diploma thesis.

It is recommended to introduce the system of mentoring that would be aimed at students who completed a different type of high school education. Furthermore, it is recommended to encourage and direct gifted students towards research, with the provision of adequate mentoring. A free psychological counselling for students is an example of good practice.

### 3.4.

From the reviewed documentation it is evident that the University of Applied Health Sciences has clearly defined assessment criteria and learning outcomes. Various methods are used in assessing knowledge and skills (written and oral exams, seminars, presentations, evaluation of acquired skills during internships and in skills laboratories, etc.). From interviews with students the panel learned that at some courses the exam questions are too easy and that there also exist a possibility of cheating. In addition, students complain that in certain courses teachers do not provide them with the opportunity to review their graded exams.

It is recommended to provide students with the opportunity to review their graded exams and re-sit the exams. In addition, information should be provided on the conditions for taking the exam.

### 3.5.

From the submitted documentation the panel concludes that the University of Applied Health Sciences has good cooperation with their alumni. A positive example of this is the recent forming of the Alumni Club and collaboration of alumni in teaching and clinical practice. Considering that

the Alumni Club was only established in 2013 and has only 114 members, this panel considers monitoring of alumni to be appropriately conducted.

3.6.

It is the opinion of this panel that the University of Applied Health Sciences takes care of the informing of public on their study programmes, learning outcomes, competencies and employment opportunities. A positive example is organization of open days for public and future students, and involvement of own students in the promotion of the University of Applied Health Sciences.

It is our impression that the available information is of general character and not related to any individual. Since there are ample opportunities for additional development in this area, it is recommended to introduce an info/hotline services that would provide answers to specific questions to all interested individuals.

3.7.

From discussions with students the panel learned that they are provided with opportunity to express their opinions, attitudes and desires. However, students' impact on the resolution of individual problems is not ascertainable, as well as in whose favour are conflicts being resolved.

It is recommended to introduce statistical monitoring with regard to reported problems, success in their resolution and information in whose favour were they resolved. It is the opinion of this panel that access to statistical data, especially high percentage of problem resolution would encourage students to seek help, voice their issues etc.

3.8.

From discussions with students and teachers, the panel learned that only general information on the results of student surveys are made available to students.

It is recommended to provide students with access to results of surveys on quality of study, and to encourage students to actively participate in improving quality of study at the University of Applied Health Sciences.

## Chapter 4: Teachers

4.1.

Number and qualifications of the scientific-teaching staff are in line with strategic goals of the institution and partly cover core disciplines. Notwithstanding the fact that during the period

from 2009/10 the amount of full-time teachers has increased, it should be noted that is still predominantly program is implemented with an external associate teachers. The institution employs not sufficient number of qualified full-time teachers especially in Nursing and Physiotherapy to ensure the quality and continuity of teaching and learning study programmes.

4.2.

The institution carries out the policy of growth and development of human resources, especially taking into account potential retirements and sustainability of study programmes and research activities. The University of Applied Health Science does not offer doctoral programmes, but in order to maintain the high quality of education of future generations supports teachers undertaking Doctoral studies in other institutions including sponsorship. University of Applied Health Science stimulates and supports financially teacher's participation in important conferences. Research activities, taking into account the objective situation, is not sufficiently developed (inability to obtain scientific grants, because of institutions status of Polytechnic).

4.3.

The ratio of the number of enrolled students to the number of permanently employed teachers in the University of Applied Health Science is only partly implemented according to the minimum criteria set out by Ministry of Science, Education and Sports for the implementation of study programs and is not comparable to that of renowned European institutions.

4.4.

The institution has well-developed policies for scientific-teaching staff that ensure their professional development, and is based on good practice of similar renowned European higher education institutions that have developed such a system.

4.5.

By total workload and allocation of load to scientific-teaching staff, HEI is comparable with renowned European higher education institutions.

4.6.

External commitments of scientific-teaching staff are regularly monitored to ensure that quality and efficiency of their work at parent institution is not jeopardized.

## Chapter 5: Scientific and Professional Activity

### 5.1.

Worked out Strategy for Development of Scientific-Research Work at the University of Applied Health Sciences for the period from 2014 to 2018 which is adopted at the session of the Expert Council on 2014 is in accordance with the fundamental strategic EU documents for the development of science is Horizon 2020, an EU programme for research and innovation covering the period from 2014 to 2020. In the mentioned strategy, the assumption lies on the development of scientific research, in line with the vision and mission of the University. The development of professional and scientific work in the period from 2014 to 2018 is defined, and is particularly defined by the 2014 Work Plan of the Office for Technical and Scientific Research of the University of Applied Health Sciences.

University of Applied Health Sciences is encouraged to overcome financial problems to expand and improve the quality (due to governmental restrictions), possible to become a full department of the Zagreb and get the opportunity and contribute the development the scientific activities so that the work plan and strategy are feasible.

### 5.2.

There are some research topics at the University of Applied Health Sciences developed in collaboration with Dubrava Clinical Hospital and the project financed by Flemish government with the aim to evaluate and further develop the internal and external quality assurance system in higher vocational education in Croatia. Research projects activities, taking into account the objective situation, is not sufficiently developed (inability to obtain scientific grants, because of institution status – Polytechnic).

University of Applied Health Sciences is encouraged to develop national as well as international research projects activities.

### 5.3.

University of Applied Health Sciences supports all forms of scientific improvement that have direct positive effects on teaching and lecturers' work - financially or by ensuring available time, including doctoral studies in various disciplines. Over the past five years, 20 lecturers from the University of Applied Health Sciences have enrolled into doctoral studies and these lecturers are close to defending their doctoral dissertation at Zagreb University's faculties. In the period from 2009 – 2014, 7 lecturers defended their doctoral dissertation and were awarded a doctor of science in the field of biomedicine and health sciences, social sciences and humanities. The above situation can be assessed as starting phase in the development of an adequate number of researchers.

University of Applied Health Sciences is encouraged to develop larger number of researchers in all specific study areas, especially in Nursing and Physiotherapy.

#### 5.4.

Lecturers at the University of Applied Health Sciences had their works published in different international scientific journals, but lecturers at the University of Applied Health Sciences have generally been selected to a teaching, not a scientific-teaching position, papers in prestige journals are the result of teamwork with colleagues in clinical hospitals, clinics and institutes. Having examined this situation it is possible to conclude that publications do not completely cover all core disciplines.

University of Applied Health Sciences is encouraged to develop scientific-teaching positions and research projects activities that will result in a growth of the number of publications in all specific areas.

#### 5.5.

The University of Applied Health Sciences supports all forms of professional and scientific improvement that have direct effects on teaching and lecturers' work - financially or by ensuring available time. All lecturers and associates of the University of Applied Health Sciences are encouraged to continue their education at higher levels. The policy of monitoring the volume and quality of scientific productivity is based mainly on monitoring the conditions met by lecturers for selection to a higher or re-election to a current teaching position. The method of monitoring indicators of scientific and research activities of lecturers is devised based on the Strategy for the Development of Vocational and Scientific-Research Work at the University of Applied Health Sciences for the Period from 2014 to 2018, and the Work Plan for the Sector for Vocational and Scientific-Research at the University of Applied Health Sciences for 2014. With the aim of further improving the situation by encouraging all forms of publishing papers authored by lecturers the Dean's Decision in 2013 introduced a reward for authors of scientific published papers.

#### 5.6.

The teaching staff of the University of Applied Health Sciences and their associates publish their peer-reviewed research papers. However the field of Nursing in this perspective is not sufficiently developed. Having the regard to the University of Applied Health Science as institutional status – Polytechnic, scientific peer-reviewed publications in core disciplines are at the beginning of development.

University of Applied Health Sciences is encouraged to develop scientific-teaching positions and research projects activities that will result in a growth of the number of publications in all specific areas.

5.7.

Research projects activities, taking into account the objective situation, is not sufficiently developed (inability to obtain scientific grants, because of institutions status – Polytechnic).

University of Applied Health Sciences is encouraged to develop national as well as international research projects activities, but the current status of the institution limits the possibilities.

5.8.

The impact of the results of professional projects at the University of Applied Health Sciences is reflected in the transfer of knowledge to a wider range of professionals who are engaged in an activity related to these projects. Implementation of the project and the acquired results gives the possibility for direct applications, at the same time application of such projects indirectly raises the possibility of employing current and future students. Achievements in transferring knowledge are at satisfactory level.

5.9.

There are some research topics at the University of Applied Health Sciences developed in collaboration with other institutions, but such activities, taking into account the objective situation, is not sufficiently developed. However, it should be noted that the development of professional and scientific work in the period from 2014 to 2018 is defined, and is particularly defined by the 2014 Work Plan of the Office for Technical and Scientific Research of the University of Applied Health Sciences.

University of Applied Health Sciences supports professional activities but the current status of the institution limits the possibilities to develop national as well as international research projects activities.

## Chapter 6: Mobility and International cooperation

6.1.

The HEI has defined clearly a set of goals in international cooperation. These goals have been transferred to a plan for internationalisation. This process is based on the principles of the Bologna process. The international activities of the institute are in the starting phase. Outgoing mobility of students is starting, based on bilateral agreements within the Erasmus program (5 students in 2013/2014). The same counts for the incoming student mobility (4 students). Based on the impressions during the site visits, the committee has the impression that communication and especially teaching in English is a problem for many staff members.



It is recommended to improve English communication skills so that incoming students can be guided during their clinical practice in English.

6.2.

The HEI has signed bilateral agreements within Erasmus+ with 9 institutes. The contracts include the mobility of students (practice and study) and mobility of staff. Some more contracts are in preparation.

6.3.

The HEI is active and successful in its search for new partnerships. The mobility of teachers however, is still disappointing low: 3 outgoing lecturers and 3 incoming lecturers during the last three years. The staff mobility has, without doubt, contributed to the goals of international orientation, comparison and benchmarking, but very concrete outcomes are not yet visible. The international staff mobility is starting as well, but limited because of difficulties in planning. Most staff members are very occupied by teaching activities that it is not feasible to go out. So, in the actual working structure, it's very difficult to find enough time to spend time abroad.

6.4.

The institute is carefully building up international partnerships, based on feasibility. Many constraints are visible: financially, language skills, work planning etc. Taking these limitations into account, the HEI is doing well according to this point.

6.5.

At this moment attracting international students is very difficult, though the HEI is working on it and has developed a strategy. Over the last three years, four incoming foreign students have participated in an international exchange program in Zagreb. The conditions for attracting students from abroad are fine. According to the possibilities and the development, the HEI is doing well.

6.6.

At this moment attracting international teachers is very difficult, though the HEI is working on it and has developed a strategy. Over the last three years, three incoming foreign teachers have visited this HEI for a period of 1-3 months. In the same period, three staff members from Zagreb have visited partner institutes for a period of 1-3 months. Given the constraints in the situation, this achievement is recognized as a fair starting point. The conditions for attracting teachers from abroad are fine, though the English language skills of many teachers and students are

troublesome. The international cooperation is to a high level oriented towards the neighbouring countries, apparently to avoid language problems. This is understandable, but for the future there's is a need to change and intensify cooperation with other (European) countries. According to the possibilities and the development, the HEI is doing well.

6.7.

The institute is building up international partnerships, based on feasibility. The HEI is actively elaborating a plan for international cooperation. This plan focusses on several objectives: to increase student mobility (incoming and outgoing), staff mobility (incoming and outgoing) and on international cooperation when it comes to research. To achieve the objectives, the HEI is recommended to actively work on international connections (e.g. by joint publications, joint international programmes, networking strategies during conferences etc.)

According to the possibilities and the development, the HEI is doing well.

## Chapter 7: Resources: administration, space, equipment and finances

7.1.

Teaching is carried out on more than one location. The capacity of the main building in Mlinarska Street 38 is insufficient to organise the teaching of all study programmes this HEI delivers. Due to lack of space, lectures are held in rented spaces on several locations. Practical teaching is justifiably being held outside of the University in clinical hospitals and other medical institutions.

It is recommended that HEI should rent or buy space, or make plans for constructing a new facility, which would allow for delivery of study programmes in a single location.

7.2.

During the visit, it has been found that in the academic year 2013/2014 HEI had 161 fully employed staff, out of which 38 – or 24% - professional-administrative-technical staff. It is the opinion of this Panel that the ratio of teaching and non-teaching staff is adequate.

7.3.

From the documentation submitted and interviews with stakeholders, the Panel found that the management of the University of Applied Health Sciences in Zagreb, in accordance with the institutional mission, ensures professional development of non-teaching staff in their respective areas. Heads of units are sent on trainings, after which they transfer new knowledge to their teams.

7.4.

University of Applied Health Sciences in Zagreb has begun with acquisition of laboratory equipment for practical exercises. Positive example is clinical skills laboratory.

It is necessary to continue with securing the necessary equipment for long-term use (manikins, demonstration equipment etc.) and consumables.

7.5.

It is evident that the management is trying to provide up-to-date equipment, technology and technical support for teaching. Positive example is IT classroom and anatomy laboratory with models but also iPads with anatomic applications. It is recommended that HEI continues with this positive practice also on other courses where example-based teaching is necessary. The Panel also recommends the acquisition of additional computers to be used in teaching process.

7.6.

The library does not fully meet students' requirements; the space is limited, and the quantity, quality and variety of library resources is insufficient. There is also an insufficient number of computers and e-textbooks. We support dislocated libraries only if it facilitates students' use (reducing travel time etc.).

It is the opinion of this panel that HEI needs to secure adequate number and quality of library resources, and additional computers and e-textbooks.

7.7.

The panel is satisfied with financial sustainability of the University of Applied Health Sciences in Zagreb; financing is transparent, generated income is used towards enabling students to finish their study programmes, and HEI has appropriate financial autonomy.

7.8.

New study programmes and new facilities and equipment used for delivery of study programmes indicate that funds are used for the purpose of improving the quality of teaching.