

# UNIVERSITY OF ZAGREB SCHOOL OF DENTAL MEDICINE

# Self-evaluation

Zagreb, March 2022

Name of the higher education institution: University of Zagreb School of Dental Medicine

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**Register of Scientific Organisations (registration number):** 65

Name of the study program	Title	Type of study	Scientific field	Holder	Duration (years)	ECTS	Full-time or part-time	Location	Year of the 1st accreditation	Level of the Croatian Qualifications Framework
Dental medicine	Doctor of Dental Medicine	Integrated undergraduate and graduate university study	Biomedicine, dental medicine	School of Dental Medicine University of Zagreb	6	360	Full-time	Zagreb	2008	7.1
Dental Medicine	Doctor of Science (PhD)	Postgraduate doctoral study	Biomedicine, dental medicine	School of Dental Medicine University of Zagreb	3	180	Part-time	Zagreb	2008	8.2
Dental Medicine	University Master of Dental Medicine	Postgraduate specialist study	Biomedicine, dental medicine	School of Dental Medicine University of Zagreb	2	120	Part-time	Zagreb	2007	7.2
Dental implantology	University Master of Dental Medicine	Postgraduate specialist study	Biomedicine, dental medicine	School of Dental Medicine University of Zagreb	1	60	Part-time	Zagreb	2016	7.2

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- Professor Silvana Jukić Krmek, DMD, PhD, Vice dean for Science
- Professor Denis Vojvodić, DMD, PhD, Vice dean for Business
- Professor Ivan Alajbeg, DMD, PhD, Vice dean for International Co-Operation
- · Associate Professor Marko Jakovac, DMD, PhD, Vice dean for Postgraduate Specialist University Studies
- Professor Hrvoje Brkić, DMD, PhD, Dean 2012-2018
- Ines Muljat Skansi, LLM, General Secretary
- Željka Orešković, LLM, head of the Office for Studies and Continuing Education
- Ivana Pažur, PhD, head of the Central Dental Library
- · Matej Par, PhD, postdoctoral researcher
- Ema Vrbanović, PhD, postdoctoral researcher
- · Marko Zlendić, DMD, assistant
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# **Translation**

· Ana Perić, BA in English

# Time period of the Self-evaluation:

- academic years 2014/2015 2020/2021
- calendar years 2015 2021

# LIST OF ABBREVIATIONS

- ASHE Agency for Science and Higher Education
- School School of Dental Medicine University of Zagreb
- IUGUS-DM Integrated undergraduate and graduate university study of Dental Medicine
- KBC Zagreb University Hospital Centre Zagreb
- Library Central Dental Library
- PGDS-DM postgraduate doctoral study of Dental Medicine
- PGSS-DM postgraduate specialist study of Dental Medicine
- PGSS-DI postgraduate specialist study of Dental Implantology
- PGSS-DMT postgraduate specialist study of Dental-Medical Tourism
- PGSS-DP postgraduate specialist study of Dental Prosthodontics
- PGSS-ERDM postgraduate specialist study of Endodontics and Restorative Dental Medicine
- PGSS-FA postgraduate specialist study of Facial Aesthetics
- SRCE University Computing Centre
- University University of Zagreb

# EVIDENCE REFERENCE INTERPRETATION

The marker of each piece of evidence consists of the chapter number and evidence number separated by the symbol #. So, for example, I#4 refers to evidence number 4 in chapter I.

- 0#number Evidence in the chapter "OUTCOMES OF THE PREVIOUS EVALUATION AND ACCOMPLISHMENTS REVIEW AFTER THE IMPLEMENTATION OF THE PROCEDURE IN 2015"
- I#number Evidence in the chapter "I. INTERNAL QUALITY ASSURANCE AND THE SOCIAL ROLE OF THE HIGHER EDUCATION INSTITUTION (ESG 1.1., ESG1.7., ESG 1.8)"
- Il#number Evidence in the chapter "II. STUDY PROGRAMMES (ESG1.2., ESG1.9.)"
- Ill#number Evidence in the chapter "III. TEACHING PROCESS AND STUDENT SUPPORT (ESG 1.3., ESG 1.4., ESG 1.6.)"
- IV#number Evidence in the chapter "IV. TEACHING AND INSTITUTIONAL CAPACITIES (ESG 1.5., ESG 1.6.)"
- V#number Evidence in the chapter "V. SCIENTIFIC ACTIVITY"

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# 1. INTRODUCTION

On 3 November 2021, the School of Dental Medicine University of Zagreb (hereinafter School) received the decision of the Agency for Science and Higher Education (hereinafter ASHE) on the process of re-accreditation of the higher education institution in April 2022. Pursuant to the ASHE's decision the School's management, led by the dean, Professor Zrinka Tarle, DMD, PhD, has appointed the co-ordinators and the Committee for the drafting of the Self-Evaluation, as well as the administrators, for the time period from the academic year 2014/2015 to the academic year 2020/2021, i.e., for the calendar years 2015-2021.

During November and December 2021 members of the Committee and administrators have participated in workshops for drafting the Self-Evaluation, working in MOZVAG (Analytic supplement to Self-analysis) systems, and CROSBI and POIROT databases.

In accordance with the Standards for quality assurance of the University of Zagreb (hereinafter University) and the constituents of the University, as well as the *Guidelines for drafting self-evaluation reports of higher education institutions within universities* which were published on the ASHE's website, a document of the School's Self-Evaluation was drafted. It is divided into the following chapters: Introduction, Brief description of the School, Outcomes of the previous evaluation and accomplishments review after the implementation of the procedure, Internal quality assurance and the social role of the higher education institution, Study programmes, Teaching process and student support, Teaching and institutional capacities, and Scientific activity. An integral part of the document is also the Analytic Appendix from MOZVAG.

Listed in the text as an appendix to the Self-Evaluation, in parenthesis (chapter number#evidence number), are markers of databases or links to the corresponding documents available via network repository. Placed at the end of the Self-Evaluation are appendices, the list of all the evidence with documents and links to websites of the School or other institutions containing evidence relevant for the work of the School.

The document was adopted at the session of the School Council held on 24 March 2022.





Broj: 01-PA-35-VII/22 Datum: 24. ožujka 2022.

Fakultetsko vijeće Stomatološkog fakulteta na temelju članka 63. stavka 6. Zakona o znanstvenoj djelatnosti i visokom obrazovanju (NN, broj: 123/03, 198/03, 195/04, 174/04, 02/07, 46/07, 45/09, 63/13, 139/13, 191/14, 60/15 i 131/17) članka 28. Statuta Stomatološkog fakulteta i članka 8. Pravilnika o sustavu osiguravanja kvalitete Stomatološkog fakulteta, na VII. sjednici održanoj 24. ožujka 2022. godine, donosi

# **ODLUKU**

I.

Donosi se Samoanaliza Stomatološkog fakulteta Sveučilišta u Zagrebu, za razdoblje akademskih godina 2014./2015. do 2020./2021., odnosno za kalendarske godine 2015. do 2021., za potrebe postupka reakreditacije Stomatološkog fakulteta u travnju 2022. godine.

Samoanaliza Stomatološkog fakulteta Sveučilišta u Zagrebu za navedena razdoblja nalazi se u prilogu i sastavni je dio ove Odluke.

II.

Ova Odluka stupa na snagu danom donošenja.



# Dostavlja se:

- 1. Agencija za znanost i visoko obrazovanje
- 2. Ured dekanice
- 3. Pismohrana

# 2. BRIEF DESCRIPTION OF THE SCHOOL

# 2.1. Development of the School of Dental Medicine University of Zagreb

The history of dental education in Croatia can in many ways be compared with the development of dentistry in our surroundings and that is what makes it comparable with the contemporary dentistry of European countries. The history of dental education and the School of Dental Medicine within the University of Zagreb (hereinafter University) encompasses three periods of development:

- from 1922 to 1948 the initial period of dental higher education and the establishment of the Department of Dental Medicine and Dentistry at the Medical School in Zagreb;
- from 1948 to 1962 the establishment and activity of the Odontological Section at the School of Medicine in Zagreb;
- from 1962 the establishment and the rise of the independent School of Dental Medicine.

The beginnings of dental education can be found within the aegis of the Medical School, and formal conditions for the beginning of the education of doctors of dental medicine were created when on 20 January 1922 the Board of Professors at the Medical School University of the Kingdom of Serbs, Croats and Slovenes in Zagreb granted Dr Eduard Radošević permission to teach (venia docendi) dental medicine and dentistry. With this act the teaching of the subject Dental medicine and dentistry commenced for students studying general medicine at the University of Zagreb. The Department of Dental Medicine and Dentistry was established and Dr Eduard Radošević became its main lecturer. In 1933, with the establishment of the outpatient department of the newly built Otorhinolaryngology Clinic at Šalata 2, the University Dental Clinic began its work. The following year, in 1934, a specialist study of dental medicine was provided for the students of medicine. Also in 1934, the Department for Maxillofacial Surgery was established with Dr Ivo Čupar as its head. Dentistry is mentioned as a mandatory one-semester subject in the academic year 1936/37 and in the academic year 1937/38 the Odontological Clinic was mentioned for the first time. On 14 May 1938 Dr Ivo Cupar delivered an inaugural lecture "Dental medicine in the light of general medicine" at the School of Medicine in Zagreb and continued the work of Professor Radošević with new enthusiasm. The work in the field of maxillofacial surgery was ultimately incorporated in the activity of the newly-opened University Dental Clinic in 1939 which saw the extraordinary development of maxillofacial and oral surgery, especially

The idea and the correlation between odontology and dental medicine compared to general medicine, especially surgical disciplines in the maxillofacial area, as well as the organisation of teaching and professional activity, formed the basis for the establishment of the Department of Odontology at the School of Medicine in Zagreb. Assistant Professor Dr Ivo Čupar was named head of the Clinic for Oral and Maxillofacial Diseases and president of the Croatian Dental Society. That marked the beginning of the gradual separation of the education of doctors of dental medicine from the aegis of the School of Medicine in Zagreb. In the curriculum of the School of Medicine, which was published in the Official Gazette in 1948, Article 7 also states lessons in the Department of Odontology. The number of students in the Department, i.e., the study of dental medicine, was 47 in the academic year 1948/49 and the first eight students graduated in 1954. During 1949 and 1950 further organisational procedures have been implemented and the teaching process has received its first lecturers and department heads. Finally, on 20 June 1951, following the initiative of the Council for Higher medical education, the Ministry of Public Health of the Republic of Croatia issued the Order on the establishment of the Department of Odontology in relation to the School of Medicine in Zagreb. The Order also included determinants on the organisational, teaching, and financial correlations between the School of Medicine and the Department of Odontology, with 40% of the curriculum dedicated to professional study courses and the remaining 60% to general medicine courses. Then followed the election of lecturers for general medical and odontological subjects. The new study plan with a very comprehensive general medical education stipulated the change of the name of the Department of Odontology, as well as the title of the graduating students - doctor medicinae dentariae. Joint efforts of lecturers and

students have been successful and the Department changed its name to Department of dental medicine in 1957, with graduating students being awarded the following degree - *doctor medicinae stomatologicae*. During the next two years preparations for a teaching reform intensified and efforts were made to renovate the building at 5, Gundulićeva Street, where the main premises of the School are still located today.

With the progress of biomedical research areas, dental medicine has developed into a professional discipline on its own right, consequently leading to the establishment of independent dentistry schools of higher education in Europe and America. Within the frame of those tendencies, and thanks to the efforts of our leading experts, following the decree no. 688-62, Article I, of the Croatian Parliament of the 26 September 1962, the independent School of Dentistry was founded within the University of Zagreb. In the academic year 1962/63 dental studies were finally separated from the School of Medicine University of Zagreb. Professor Živko Bolf, PhD, was elected to be its very first dean, contributing greatly to the successful development of the independent School with his vast experience. The School's first Bylaws stressed teaching and scientific work within the meaning of the principle that dental medicine presents the integral part of medicine. The study lasted five years. That enabled fulfilling some very important requirements for further teaching, scientific and professional development, which was further modernised by implementing new teaching contents. Acknowledgement of dental medicine as a discipline in its own right was important. It showed that, although dental medicine derived from the medical profession, shows many particularities which could only be fully recognised and valued with its separation and the establishment of the independent higher education institution. The curriculum for a five-year study of dental medicine has gone through many revisions since its adoption, in accordance with the development of social needs, scientific-teaching personnel base, and spatial capacities. This has resulted in the establishment of new departments, fundamental organisational units of the School: Department of Tooth Morphology, Department of Fixed Prosthodontics and Department of Removable Prosthodontics, Department of Paediatric and Preventive Dentistry, Department of Orthodontics, Department of Dental Pathology, Department of Oral Pathology which in 1973 was divided into the Department of Periodontology and the Department of Oral Surgery. The School is in constant synergy with the University Hospital Centre Zagreb (hereinafter KBC Zagreb) and the Department of Dental Medicine which has been a constant in the School's development ever since its beginnings in 1965. Establishing a higher level of education in the field of medical subjects was successfully accomplished on 21 January 1971 when on a joint session of the Council of the School of Dental Medicine and the Council of the General Hospital "Dr Mladen Stojanović" it was decided that the General Hospital "Dr Mladen Stojanović" (today the Clinical Hospital "Sestre milosrdnice") would become the clinic hospital of the School and a clinical teaching base for the students of dental medicine, whereby the issue of clinical medical courses was solved. The Clinical Hospital Centre "Sestre milosrdnice" has been a collaborative institution since 1971 in which there are 13 operational general medicine departments with clinicians and teachers from the School. Other collaborative institutions without which the School's activity would be impossible are the School of Medicine Zagreb, the Clinical Hospital Dubrava, and the University Hospital for Infectious Diseases "Dr Fran Mihaljević".

In the academic year 1999/2000 the first complete self-evaluation of the School was made, the basis for the assessment and efficiency of the curriculum. The first international visitation procedure was conducted in 2001 by the Association for Dental Education in Europe, and after that three more self-evaluations and re-accreditations: in 2005, 2009, and 2015.

The School employs 265 people who are by profession doctors of dental medicine, doctors of medicine, molecular biologists, natural science teachers, dental technicians, nurses, and support administrative and technical personnel. The overall number of teachers in scientific-teaching titles is 163 (28 full professors in permanent status, 26 full professors first election, 42 associate professors, 36 assistant professors, 30 postdoctoral researchers and assistants, and 1 senior lecturer with 2 professors emeritus).

# 2.2. Organisational structure of the School of Dental Medicine

The School is a legal entity with the status of a public institution. The University has founding and proprietary rights over the School. The Act on Scientific Activity and Higher Education and the Statute of the University of Zagreb prescribe the powers of the School in legal transactions and management.

Administrative bodies of the School are the dean and the School Council.

The School consists of:

# SCHOOL DEPARTMENTS

- 1. Department of Dental Anthropology
- 2. Department of Endodontics and Restorative Dentistry
- 3. Department of Paediatric and Preventive Dentistry
- 4. Department of Fixed Prosthodontics
- 5. Department of Removable Prosthodontics
- 6. Department of Oral Surgery
- 7. Department of Oral Medicine
- 8. Department of Orthodontics
- 9. Department of Periodontology

# **SCHOOL CHAIRS**

- 1. Chair of Dermatovenerology
- 2. Chair of Gynaecology and Obstetrics
- 3. Chair of Pharmacology
- 4. Chair of Physiology
- 5. Chair of Immunology
- 6. Chair of Infectology
- 7. Chair of Internal Medicine
- 8. Chair of Microbiology with Parasitology
- 9. Chair of Neurology
- 10. Chair of Ophthalmology
- 11. Chair of Oncology and Nuclear Medicine
- 12. Chair of General and Dental Radiology
- 13. Chair of General and Social Subjects
- 14. Chair of General and War Surgery
- 15. Chair of Otorhinolaryngology
- 16. Chair of Pathophysiology
- 17. Chair of Pathology
- 18. Chair of Paediatrics
- 19. Chair of Psychiatry and Medical Psychology
- 20. Chair of Social Medicine and Epidemiology

# **CHAIRS (MEDICAL COURSES)**

(on the basis of external co-operation)

- 1. Chair of Anatomy
- 2. Chair of Biophysics
- 3. Chair of Biochemistry
- 4. Chair of Chemistry
- 5. Chair of Biology
- 6. Chair of Histology and Embryology
- 7. Chair of Statistics and Informatics

# 2.3. Leadership structure of the School of Dental Medicine

**The dean** is the leader and the head of the School, manages and represents the School, and is responsible for the legality of the School's work and its activity in accordance with the Act, the Statute of the University in Zagreb and the Bylaws of the School of Dental Medicine. The dean's mandate lasts three years.

Vice deans and assistants to the dean assist the dean in accordance with the provisions of the Bylaws of the School of Dental Medicine. Vice deans are proposed by the dean among the lecturers of the School already appointed to a scientific-teaching title. The number of vice deans is determined by the dean with regard to their specific professional area for which the vice deans shall be in charge. The assistants to the dean are appointed by the dean for a period of three years. The assistants to the dean help the dean perform tasks in the area of activity for which they are appointed.

**Dean's Management Board** is a professional body that, along with the dean, is made up of vice deans, assistants to the dean and the secretary of the School. In order to carry out certain tasks within their scope of responsibility, the dean may delegate powers to the dean's management board by written decision.

**School Council** is a professional council composed of chosen representatives of the employees with appointments to scientific-teaching, scientific, teaching, and assisting titles, as well as the student representatives. Besides the authority given to it by the Act, the School Council makes decisions, reaches conclusions, and gives opinions by a majority of the votes of the representatives which are present. The mandate of representatives in the School Council last three years.

#### ASSISTANTS TO THE DEAN

- 1. Assistant to the dean for general medical courses
- 2. Assistant to the dean for clinical medical courses
- 3. Assistant to the dean for student affairs

# **VICE DEANS**

- 1. Vice dean for Teaching and Students
- 2. Vice dean for Science
- 3. Vice dean for Business
- 4. Vice dean for International Co-Operation
- 5. Vice dean for Postgraduate Specialist University Studies
- 6. Vice dean for Quality Assurance

# **BOARDS**

- 1. Board for Lecturer Selection
- 2. Board for Quality Assurance
- 3. Board for Postgraduate Doctoral Study
- 4. Board for Postgraduate Specialist Studies
- 5. Board for Teaching and Students
- 6. Board for Science
- 7. Board for International Co-Operation
- 8. Ethics Board

# **COMMITTEE**

- 1. Committee for E-learning
- 2. Committee for Informatisation of the School of Dental Medicine
- 3. Committee for Publishing
- 4. Library Committee
- 5. Committee for Organisation and Implementation of Continuous Learning Courses
- 6. Committee for Implementation of Procurement Procedures
- 7. Committee for Graduation Thesis
- 8. Committee for Introducing Students to Scientific Work
- 9. Committee for Assessment of Study Programmes at Higher Education Institutions from non-EU Countries
- Committee for Competence Assessment for the Recognition of Foreign Education Qualifications for Doctors of Dental Medicine
- 11. Committee for Knowledge Assessment after the Adaptation Period at the School of Dental Medicine

**Secretariat** of the School is a professional administrative organisational unit. The Dean's Office is also part of the Secretariat. The Secretariat is managed by the General Secretary, and the Secretariat also carries out other tasks that are not part of the regular activities of other organizational units. The professional services of the Secretariat are:

- Department of Human Resources, Legal and General Affairs
- Department of Finances and Accounting
- Department of Studies and Continuing Education
- Department of Information Sciences and Multimedia
- Department of Technical Affairs, Work Safety and Fire Prevention.

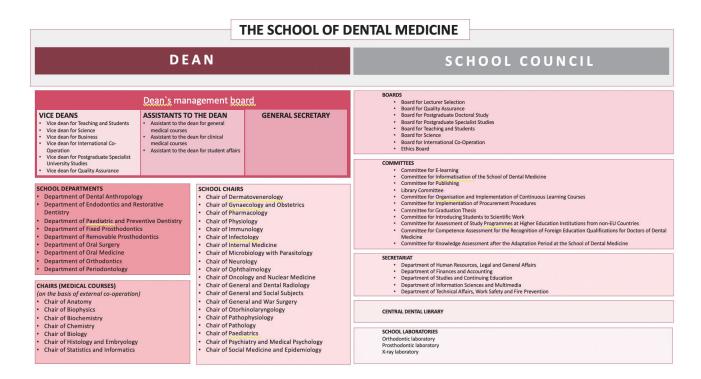


Figure 1. Organisational structure of the School

# **Activities of the School**

- Implementation of the integrated undergraduate and graduate university study of Dental Medicine in Croatian and in English in the scientific area of biomedicine and health care in the duration of six (6) years.
- Implementation of the scientific and professional work through postgraduate studies in the scientific area of biomedicine and health care.
- Organisation and implementation of different forms of professional and scientific training of health care workers for the purpose of following new health achievements and participation in health care programmes.
- Organisation and implementation of national and international courses and workshops in order to increase the proficiency of students, health care workers and other interested persons for the purpose of continuing education.
- Publishing, library and information activity for teaching purposes, as well as for scientific and professional work.
- Performing of judicial expertise in the scientific and professional areas of biomedicine and health care.
- International co-operation in the scientific and professional area.
- The School can perform other activities as well, if they serve the core activity and contribute to the utilisation of personnel and facilities.

# 2.4. Vision and Mission of the School of Dental Medicine

**Vision:** Based on the principles of excellence of the teaching and educational process, to educate students and involve them in research and clinical work, thus becoming the leading institution of higher education in the wider region in our field and therefore the first choice of future students, candidates for becoming doctors of dental medicine.

**Mission:** Our mission is to achieve excellence and innovative approach to education, research and dental treatment with the purpose of forming modern dentists/doctors of dental medicine capable of dealing with global social changes and challenges and at the same time adaptable to the changes and needs of modern society. Student and teacher mobility in accordance with the requirements of the European system of higher education and the EU labour market are one of our priorities. The School of Dental Medicine is making efforts to maintain a relevant status in the national and international system of higher education. The vision and the mission of the School are based on:

- 1. The historical tradition since the study programme for educating future dentists/doctors of dental medicine has been carried out for 74 years,
- 2. The geographical position of the University of Zagreb and the regional engagement of the School's employees,
- 3. The education of excellent doctors of dental medicine focused on expert work and research,
- 4. creating a centre of scientific-research excellence in the field of dental medicine and dental materials,
- 5. enhancing the systems of quality assurance,
- 6. transfer of knowledge and international recognition,
- 7. enhancement of communication technologies such as e-learning in teaching and education,
- 8. lifelong training and education of doctors of dental medicine.

# 2.5. Study Programmes

**Integrated undergraduate and graduate university study of Dental Medicine** is a six-year study programme, students should obtain 360 ECTS points, and the total teaching schedule amounts to 5115 hours of classes. The study has existed since 2010 and it was approved by the European Commission, with an average of 85 enrolled students per year. Enrolment terms include passing 6 subjects on the state graduation exam (compulsory subjects, extended level) and a psychomotor ability test.

Since the academic year 2017/2018 the integrated six-year study programme has also been available in English for both foreign and domestic students, with 24 enrolled students per year.

# Postgraduate specialist studies

The School offers two postgraduate specialist studies:

Postgraduate specialist study of Dental Medicine and Dental Implantology in the duration of four and two semesters, respectively, which are available to graduated doctors of dental medicine, with an average number of 30 students per year.

Four more one-year postgraduate specialist studies have been approved: Dental-Medical Tourism, Dental Prosthodontics, Endodontics and Restorative Dental Medicine, and Facial Aesthetics.

# Postgraduate doctoral study

Postgraduate doctoral study of Dental Medicine in the duration of six semesters (180 ECTS) was established in the academic year 2007/2008, and is available in Croatian and in English for both domestic and foreign students. An average number of students per year is 40 and the number of the dissertations defended during one year is 15. Postgraduate doctoral study of Dental Medicine is the only postgraduate doctoral study of dental medicine in the Republic of Croatia. The study is compliant with the highest international standards, valuing and adopting all the applicable examples of good practice from other universities and schools.

# **Lifelong learning**

Besides postgraduate studies, the School's teachers also hold workshops and training courses, as well as symposia and conferences. The average number of courses during one year is 25, 22 of which are graded by the Croatian Dental Chamber, allowing the doctors of dental medicine to qualify for a six-year relicensing. Regulations on the specialist training from 2007 allow specialist training in dental medicine in eight disciplines: Family Dentistry, Paediatric Dentistry, Endodontics and Restorative Dentistry, Oral Surgery, Oral Medicine, Orthodontics, Periodontology, and Dental Prosthodontics. All are held by the School lecturers who are also employed at the Department of Dental Medicine at the University Hospital Centre Zagreb.

# 3. OUTCOMES OF THE PREVIOUS EVALUATION AND ACCOMPLISHMENTS REVIEW AFTER THE IMPLEMENTATION OF THE PROCEDURE IN 2015.

In the previous cycle of the School's re-accreditation, the expert committee's visit took place on 2 and 3 March 2015. The committee compiled the Self-Evaluation which was delivered to the School in May 2015, and which consisted of 7 units: Higher Education Institution Management and Quality Assurance, Study Programs, Students, Teaching Staff, Scientific and Professional Activity, Mobility and International Cooperation, and Resources: Administrative and Support Services, Space, Equipment and Finances.

# a. Higher Education Institution Management and Quality Assurance

Drawing up a strategic document which clarifies the School's goals, the way in which they plan to be achieved, and implementation monitoring. In this regard, the School should make sure that such plan is in accordance with the broader strategy of the University and complementary to it.

Strategic goals of the School, continuous improvement of science, profession and education, as well as their impact on social processes, consistent promotion of high academic and human values in general, and increasing space capacities of the School, are defined by the Strategic Programme of Scientific Research of the School of Dental Medicine University of Zagreb for the period 2015-2019 (0#1) and the Dean's Work Programmes (0#2, 0#3). Ways of carrying out and monitoring implementation are monitored through annual Reports on the work of the dean (0#4 to 0#6), Reports of the Board for Postgraduate Doctoral Study (0#7, 0#8), Reports of the Board for Science (0#9, 0#10), Reports of the Board for Postgraduate Specialist Studies (0#11), Reports of the Board for Lecturer Selection (0#12 to 0#14), Reports of the Board for Teaching and Students (0#15 to 0#17), and the Reports of the Board for Quality Assurance (0#18, 0#19). The greatest obstacle for further development of the School is the lack of space. Considering the purchase of the apartment in the street building in 5, Gundulićeva Street during 2021, the expansion of the existing space capacities, and the potential extension of the School (see Chapter 4.4), preparations for a comprehensive Development Strategy of the School of Dental Medicine University of Zagreb 2023-2028 have begun. For this purpose an Internal Evaluation of Quality Assurance System (0#20) and SWOT analysis (0#21) have been carried out. The deadline for drawing up the strategy is the end of 2022.

Processes at the School are effective for the most part, but possibilities of developing academic and administrative processes which would enable easier access to external financing of the research work should be looked into.

The School encourages its employees to establish collaboration with external subjects in the sense of joint development projects with the School's share being the scientific-research component and the source of financing being means from partners in the industrial sector or from international funds. The result of such positive environment at the School is the project "Biodegradable Implants for Bone Tissue Engineering" carried out by Topomatika d.o.o. and Izit d.o.o., with the School as the public partner (0#22). The project is financed from the European Structural and Investment Fund within the Call "Increasing the development of new products and services arising from R&D activities – Phase II". Still, due to increased workload of the personnel from the accounting-legal service, who have a large role as administrative support in such projects, the School partly relies on University resources such as the Centre for Research, Development and Technology Transfer University of Zagreb (CIRTT) (0#23).

In order to maintain the quality of its studies, the School should consider the ways of increasing participation of external stakeholders. Although the expert committee considers the membership in the Association for Dental Education in Europe to be important in that sense, the School should also include as external stakeholders former students, i.e. alumni, potential employers, dental and pharmaceutical companies in the country and abroad, etc.

In order to maintain study quality, the School started including external stakeholders in different ways. Lecturers from other schools in Croatia and abroad are included in classes, some as external contributors and some as visiting professors. Visiting professors are chosen from the ranks of outstanding foreign scientists with a great international reputation. Each visiting professor elected for two years with the possibility of a two-year extension is suggested by the department head and confirmed by the School Council. The tendency is for each department to have at least one visiting professor because in that way teaching and scientific activities are enriched and international recognition is increased. Since the last re-accreditation, the visiting professors at our School were: at the Department of Oral Medicine Dr Tim Hodgson (UCL - Eastman Hospital London) and Assoc. Prof. Nathaniel S. Treister (Harvard, B&WH); at the Department of Dental Anthropology Prof. Kurt W. Alt (Krems, Austria) and G. Richard Scott (Reno, USA); at the Department of Endodontics and Restorative Dentistry Prof. Reinhard Hickel (LMU Muenchen); at the Department of Paediatric and Preventive Dentistry Prof. Luc A.M. Marks (Gent, Belgium). Meetings with potential employers are organised for the students of the sixth year. The School invites representatives of various institutions which employ doctors of dental medicine, such as the heads of health centres and other public institutions which provide primary dental care, representatives of large dental polyclinics and owners of smaller dental offices, and representatives of companies which sell dental equipment and material which employ doctors of dental medicine. At these meetings, among other things, valuable feedback important for the improvement of the study programme is obtained. Former students volunteer, at the School's incentive, as mentors outside the School to students at practicals. That co-operation functions well because former students know the School well, i.e. its advantages and drawbacks, and can make suggestions to the School's management on how to improve the study and teaching. That is important for ensuring the achievement of better competences important for the entering of young doctors of dental medicine

An efficient mechanism of regular and documented teaching review between colleagues should be implemented, with certain mechanisms of improving educational training of teachers from the top down (mentorships, lectures on methods and techniques of teaching and assessment, meetings, etc.)

In the period between 2015 and 2021 several activities concerning the increasing of teaching competences of lecturers have been carried out. The School's teachers have participated in symposia, workshops and other gatherings in Croatia and abroad which has contributed to improving their teaching competences (see Chapter 4.3.1.). Unfortunately, teaching review mechanisms among colleagues have not been implemented.

on the labour market. Former students who have built academic or science careers outside Croatia are invited to share their experience with the current

students in the form of a lecture.

In order to prevent unethical actions in studying and teaching, the School should create its own Code of Ethics for students and teachers, along with the Code of Ethics in Science. The School, as a constituent of the University, uses the Code of Ethics of the University of Zagreb (0#24) which describes in great detail the mentioned behaviour, which is regulated by the Statute of the University of Zagreb (0#25) and the Bylaws of the School of Dental Medicine (0#26). For teachers, employees of the School, the listed behaviour is regulated, along with the above-mentioned legal acts, by the Labour Act (0#27) and the Labour Regulations of the School of Dental Medicine (0#28), and steps have been taken according to their provisions on several occasions (see Chapter 1.3.).

# **b. Study Programmes**

Monitoring and improving the quality of study programmes will additionally improve the participation of external stakeholders (for example, a representative of an external organisation could be a member of the Committee for Quality Assurance)

Since the academic year 2018/2019 the Board for Quality Assurance has been composed of 11 members from the ranks of professors, assistant professors, postdoctoral researchers, assistants, students, and external stakeholders such as the employee of the teaching base of KBC Zagreb, the employee of a public health institution, and the owner of a private company dealing with dental activity and X-ray diagnostics (0#29, 0#30).

As far as enrolment quotas are concerned, especially the ones for the six-year integrated programme, the School must develop a process of monitoring student employment after graduation and of getting clear insight into employment opportunities in Croatia based on clinical needs of the population in different regions.

The School monitors and analyses employability of graduated students using the data from the Croatian Employment Service, ASHE (0#31), and its own research (0#32). For the analysis of employability of graduated students conducted by the School, the following data, among others, are being collected: status of employment, type of the institution of employment, job position, the length of the period of time until the first employment in the field, satisfaction with the work conditions, working time, salary, perspective, possibility of personal improvement, etc. According to the results of the employability analysis of students graduated from the School between 2015 and 2021, 70% of graduated students have been waiting up to 3 months for their first employment based on the diploma of the doctor of dental medicine, and over 93% of students have been employed; most of the employed work in the Republic of Croatia and 12% work outside the Republic of Croatia.

The School should continue looking for ways of expanding the existing facilities in order to improve the educational and research studying experience and to enable further future growth.

We are continually trying to find the best way of increasing our space capacities in order to improve educational and research activity and to enable the School's further development and growth. In the School's existing available facilities, the only thing that can be done is the conversion of certain areas in order to use them more efficiently. By carrying out a careful conversion of the available space we have managed to obtain: a temporary science laboratory (20 m²) which, for the first time, holds all appliances and other valuable research equipment funded from science projects and the School's own funds in one place; one seminar room (25 m²) for teaching purposes; one teacher study room for scientific-teaching work, consultations with students and exams; additional space for the expansion of the dental laboratory in order to improve

the quality of the teaching process in dental prosthodontics (making metal bases for dental prostheses); space for patient triage due to Covid-19 pandemic. The School has also made a giant move forward in 2021 by purchasing 162 m² of residential space in the School's street building which will be converted into a contemporary student clinical training room, a fully equipped computer room/lecture room, and a new science laboratory (see Chapter 4.4.1.).

In order to assess the actual student workload on each course, the School must conduct a revision of ECTS allocation before the next external evaluation.

Student workload and the compatibility of ECTS points in certain subjects is being continually monitored, analysed, and adequate changes in the study programme are made according to it. The last study was conducted in the period between 23 October and 1 November 2020 in the form of an online survey among students in their 2nd, 3rd, 4th, 5th and 6th year of studies during the academic year 2020/2021, and among doctors of dental medicine who have graduated in the academic year 2019/2020. Students have assessed academic workload for each obligatory subject in the previous year by stating how many hours of extra time was needed to master the subject. The results of the study on student workload at the integrated undergraduate and graduate university study of Dental Medicine (hereinafter IUGUS-DM) have been presented at the School Council and according to them, in agreement with the subject teachers, the Board for Teaching has suggested changes and amendments of the study programme which were accepted at the School Council (0#33, 0#34) and later at the University, and have been implemented since the academic year 2021/2022.

The expert committee considers the content and the quality of study programmes to be in accordance with the highest standards, but could be additionally improved by covering the latest scientific findings.

The study programme is being constantly updated with the latest scientific and expert findings by adding new elective subjects to IUGUS-DM. Thirteen new elective subjects (0#35) have been added in the last 5 years, and students have recognised them as an excellent opportunity to acquire useful new knowledge, skills and competences outside the group of obligatory and existing elective subjects. Besides, an elective subject called "Project" was introduced on all years of study where students can engage in numerous scientific and professional activities under the mentor's supervision (0#36). Also, digital technologies (3D printer, intraoral scanner, milling machine) have been integrated as teaching units in several preclinical and clinical subjects (0#37, 0#38, 0#39, 0#40). The School's students have also participated in Summer Schools on basic scientific-research methods for the orofacial area: regenerative oral and dental medicine (0#41).

The introduction of a six-year programme has *ended the programme* of practicals within the study which used to provide student with the first-hand experience of general clinical practice. Community service, partnerships with the industry or collaboration with other higher education institutions (in the field of medicine and nursing) could create opportunities for mastering the acquired knowledge for students.

Since 2015, in the last semester of the last year of IUGUS-DM (12th semester of the 6th year) all students have to take 500 hours of obligatory practical extracurricular classes in the form of practicals. The purpose of the practicals is to prepare students as best as possible for independent work in a dental office so that they could be better and more quickly recognised at the labour market after graduation. Practicals are carried out in polyvalent dental offices all over Croatia (0#42) which have signed a collaboration contract for the implementation of practicals with the School for the current academic year (0#43). Students are also included in numerous community service projects such as the Geronto project and Zubić, among many others.

The Geronto project is a student project (**0#44**) devised in November 2010 and is still being implemented. It is aimed at the users of nursing homes. The main goal of the project is to improve health care of the elderly and to develop awareness of the role of oral health in the overall quality of life. The project has a research and volunteer component. Activities include educational lectures on oral hygiene and preventive examinations of the oral cavity.

Zubić is a preventive student project initiated in 2015 (**0#45**). The goal of the project is to raise awareness on the importance of oral health and oral hygiene since early childhood. Students hold numerous workshops in kindergartens and schools and use them to draw attention to oral hygiene through laughter and games, at the same time trying to dispel their fears of the doctor of dental medicine. They use social networks to try and educate the public on the importance of oral health since early childhood.

# c. Students

By the next external evaluation the School can develop a system of mentorship and counselling which would be available to all students in order to support their career choice and professional training.

Student counselling on career opportunities is carried out on several levels. In the first year of IUGUS-DM within the course "Introduction to dental medicine", students listen to a lecture called "What to do after college" during which students are introduced to employment opportunities, continuation of education after graduation. Also, in the fifth year students have the opportunity to choose the course "Career development in dental medicine" which gives career opportunities. A meeting with potential employers is organised for the students of the final, sixth year of study in the 11th semester. The School invites representatives of various institutions which employ doctors of dental medicine, such as the heads of health centres and other public institutions which provide primary dental care, representatives of large dental polyclinics and owners of smaller dental offices, and representatives of companies which sell dental equipment and material which employ doctors of dental medicine. They also get mentors at curricular (for example, the course Project which is held at all years of the study) and extracurricular activities (for example, Virtual World Congress of Dental Students), at practicals, and while working on their thesis. Mentors advise and guide students in their career development and further professional training.

Evaluation procedures are considered to be good and can be further improved by giving more detailed feedback to students.

Student feedback on the objectivity and consistent implementation of evaluation procedures are collected and analysed from surveys on the evaluation of the study in general (0#46). In accordance with the collected data the Board for Teaching and Students suggests methods of raising the level of objectivity and assessment reliability. According to the Study regulations (0#47, 0#48), the student receives feedback on assessment results immediately with an oral

examination or within five days after the exam with written examinations. There is also a possibility of consultations with the course teacher for students having problems with passing the exam in order to pass it as soon as possible. The evaluation of the study programme as a whole by graduated students shows that students are extremely satisfied with the received feedback.

The School should establish a system of tracking student employment and careers.

The School monitors and analyses the employability of graduated students (0#31, 0#32). For the analysis of employability of graduated students conducted by the School, the following data, among others, are being collected: status of employment, type of the institution of employment, job position, the length of the period of time until the first employment in the field, satisfaction with the working conditions, working time, salary, perspective, possibility of personal improvement, etc.

The School should increase the level of public engagement in the work of employees and students, concerning the scientific and teaching work and programme.

Since the academic year 2019/2020 a new elective course called Project has been introduced. The purpose of the course is to include the students in scientific and professional activities offered by the School with the goal of increasing their scientific, professional and organisational skills and competences. Scientific activities within the Project are activities connected with laboratory, clinical or field research which are performed under the teacher's mentorship. Professional activities within the Project (0#36) are all other non-scientific activities which are performed under the teacher's mentorship and are connected with the application of theoretical knowledge and practical skills in dental medicine, but also in other areas. These activities can include field work, preventive dental activities, educational workshops, organisation and/or help with organising professional gatherings, television and radio appearances, and other forms of public engagement of employees and students (see Chapter 1.5.).

# d. Teachers

Expert committee considers that it would be good for the School to improve policies connected with professional training of teaching and scientific staff, especially considering the current difficulties with the advancement of younger employees.

In the period since the last re-accreditation the School has made great effort to improve teaching, professional, and scientific competences of scientific-teaching workload. Within the project "Internationalisation of higher education – the Study of Dental Medicine in English" a large number of lecturers has gone through the education on the methods of teaching in English by attending Academic Teaching Excellence workshops in 3 cycles (0#49). Forty lecturers have participated in the workshops. The first cycle was held in December 2018 and two in January 2019. The second round of education was held in September 2021 (2 cycles, 24 lecturers). Workshops lasted five days with full working hours and the feedback was very good. Also, the School's lecturers have been trained in other domains, too, such as designing e-courses, working in the Merlin system, and undertaking study visits abroad (see Chapter 4.3.1. and 4.3.3.).

Within the EU project called "Improvement of the Study Programme of Dental Medicine in Accordance with the Croatian Qualifications Framework (CQF)", the School's management has organised a symposium-workshop "Implementation of the CQF and the Development of Tools for Connecting Education and Labour Market" for expert mentors, teachers, and associates of the School in the Grand Hotel Adriatic in Opatija in February 2015. All expert mentors who were present at the symposium have received basic information on their mentorship while hosting our students in their 12th semester in their

polyvalent offices. Teaching skills necessary for the work with students were also presented to them. Lecturers were professionals from the field of teaching and psychology, as well as experts specialised for CQF. The School's teachers and associates have actively participated in the workshop on the outcomes of learning and professional competences in accordance with the CQF (0#50). The School's teachers improve their professional competences through numerous congresses, courses, and workshops in which they participate mostly as active participants. Other than that role, at such gatherings teachers come into contact with businessmen, manufacturers of dental equipment and materials, which enables planning different types of collaboration, from research to educational study travels.

Summer schools on basic scientific-research methods for the orofacial area: regenerative dental and oral medicine were organised in 2019, 2020, and 2021 within the project "Internationalisation of the Study of Dental Medicine" (0#41).

In collaboration with Cochrane Croatia on 4 April 2018 a training event called Evidence-Based Dental Medicine was held at the School, led by esteemed British professors Janet Clarkson, PhD from the University of Dundee and Helen Worthington, PhD from the University of Manchester. Both professors are co-ordinating editors for oral health of a non-profit international organisation Cochrane which promotes evidence-based medicine. The main mission of this organisation is to promote evidence-based principles in medicine and dental medicine by constantly raising awareness on the importance of such systematic examinations when making everyday decisions in clinical practice. Professor Lucija Puljak, PhD, Professor Ana Jerončić, PhD, Professor Ana Utrobičić, PhD, Assistant Professor Livia Cigić, PhD, and Associate Professor Darko Božić, PhD, have participated as lecturers in this education event. The organisers of this event were the management of the School and Tina Poklepović Peričić, PhD, co-director of Cochrane Croatia from the University of Split (0#51).

The School should aim at developing a system which would ensure that the advancement in scientific and teaching titles also means changed expectations concerning teaching, scientific, and administrative assignments (for example, full professors and associate professors should not have to spend an equal amount of time engaging in activities such as teaching and mentorship).

The School's teachers in the scientific-teaching title are mostly employees who are partly engaged in teaching and science, and partly taking part in activities connected with health care, thus having assignments in cumulative work. In accordance with the Article 60 Section 2 of the Collective Agreement for Science and Higher Education (0#52), "obligations of the employee employed part-time are proportionally reduced", so, when determining the composition of the working hours, work in health care should be taken into consideration. The standard division of working time for teachers in the scientific-teaching title presumes 1800 hours of teaching per year, 180 of which account for the institutional contribution and administration, 810 for lectures and another 810 hours for scientific work. 810 hours for lectures is divided into 60% or 486 hours for direct teaching activities and 324 for indirect teaching activities. Assistants have 50% less lectures, i.e., 405 hours of lectures (243 direct and 162 indirect activities), 1215 for science, and 180 for institutional contribution and administration. Postdoctoral researchers have 25% less lectures, i.e., 608 hours of lectures (365 of direct and 243 indirect activities), 1012 for science, and 180 for institutional contribution and administration. Full and associate professors should spend less time teaching in such a way that there are more lectures present in their working time composition. That way a larger number of contact hours (lectures) would be achieved and professors would reach the full annual quota in teaching with 150 hours of teaching just through lectures. In conditions of a greater need for advancement in the scientific-teaching title, assistant professors, assistants, and postdoctoral researchers could spend a larger number of teaching hours in those forms of teaching which require less contact hours. Regulation made by the Government of the Republic of Croatia (0#53) which fixes the overall available coefficient of the School, thus preventing any new employments, caused the deviation from the previously stated division of work obligations in order to comply with the curriculum.

# e. Scientific and Professional Activity

Expert committee was presented with a clear vision of the development of the School's scientific activity, but it should be described in a strategic document which would contain goals for all areas of academic work.

Although a clear vision of the development of the scientific activity was presented, based on the recommendations of the Expert Committee the School's management has compiled and the School Council has adopted the Strategic Programme of Scientific Research of the School of Dental Medicine University of Zagreb 2015-2019 (0#1). Six strategic goals are listed in that strategic programme: 1. Strengthening scientific quality (encouraging academic excellence), 2. Encouraging the submission and management of national and international projects, 3. Encouraging external mobility of scientists and students, 4. Systematic and organised encouragement of interinstitutional and international networking, 5. Institutional care of the personnel (introduction of the most successful recruits/postdoctoral researchers into the scientific-teaching system), 6. Encouraging innovations and their commercialisation.

Planned scientific topics are grouped into several research areas: Biomaterials and Technology in Dental Medicine, Stem Cell Research, Molecular Research and Regenerative Dental Medicine, Structure and Function of the Stomatognathic System, and Epidemiology and Public Health.

In order to increase income from the scientific work, the School should introduce the process of support for project development in collaboration with other organisations through, for example, Horizon 2020 EU programme.

Although due to personnel limitations the School does not have a highly elaborated process of support for the development of projects in collaboration with other organisations, the School uses University resources in this regard, and as an institution encourages and gives support to employees to participate in projects in collaboration with other organisations such as, for example, the project "Biodegradable Implants for Bone Tissue Engineering" (0#22) by Professor Amir Ćatić, PhD, and Associate Professor Dragana Gabrić, PhD, which was financed from the European Structural and Investment Fund within the Call "Increasing the development of new products and services arising from R&D activities – Phase II". Such a project establishes collaboration between the business sector and research organisations with the goal of developing research and innovation capacities of the School and strengthening the ability of manufacturing high value-added products.

In order to increase the level of technology transfer the School must either implement its own system of improving such activities or work closely with the central services of the University in order to achieve that goal. Considering its limited personnel capacities, the School does not have its own system of improving such activities, but relies largely on the work of the University Centre for Research, Development and Technology Transfer (0#23). The School's dean, Professor Zrinka Tarle, DMD, PhD, is also a member of the Committee for Innovations and Technology Transfer University of Zagreb, where with her active participation she is contributing to a successful work and the creation of conditions necessary for establishing the collaboration between research groups and partners from the business entrepreneurial activity sector.

# f. Mobility and International Co-Operation

The Expert Committee welcomes the intention of developing a programme in English in order to better attract international students and considers that it needs to be encouraged, provided that the problems with available space are solved.

In the academic year 2017/2018 the first generation of students was enrolled in IUGUS-DM in English and 79 students in years 1-5 are currently studying under that programme. More than half of them are foreign students. The apartment bought in the street building of the School in 5, Gundulićeva Street will be intended for holding classes in English and equipped with 10 new dental working units. The study programme in English is probably the most important change in our institution since the introduction of the Bologna Process. It significantly changes the profile of our activities in the sense of increased internationalisation and opens the School to the entire world. It also demands adjustment from the teachers and causes additional development of the employees, processes, communication, and of the overall institution.

There is evidence on the participation in joint studies and the Erasmus Programme, but an increase of such activities should be enabled, especially once English is introduced as a teaching language.

A very active Erasmus Programme has been successfully developed since the last re-accreditation (see Chapter 3.6). Incoming student mobility is also very intense and the study programme in English encourages such mobility because incoming students can now receive standardised education in English. Owing to the realisation of the Erasmus Programme, the School has become a partial *alma mater* to an ever-growing number of foreign students who spend a semester or an entire year here. The presence of foreign students enriches the work of the School and enables creating a more objective image of the quality level based on feedback obtained from foreign students.

# g. Resources: Administrative and Support Services, Space, Equipment and Finances

The Expert Committee understands that space limitations stand in the way of achieving a large part of the School's ambitions and considers that it is the University's responsibility to solve that problem in collaboration with the School, thereby ensuring a mechanism of growth and expansion of educational and scientific programmes.

The biggest complaint of the Expert Committee during the last re-accreditation referred to space capacities of the School. In co-operation with the University and the Department of Architecture of the Faculty of Architecture (Professor Poljanec, PhD), the "Project Programme for the Objectivisation of Spatial Needs of the School of Dental Medicine" was made (0#54). It ascertains and documents an overview of insufficient space of the School. Initiatives to move the School to new locations have not been realised in the last 6 years due to unsolved property-legal relations and inadequate public transport connectivity which is necessary for the arrival of patients to clinical exercises of students (University project "Northern Campus" and the "Borongaj Campus" project). Taking into account the absence of an adequate location for relocating the School which would enable the increase of space capacities along with financial sustainability, it was concluded that the most realistic option is the extension of the School's building at the existing location with the co-financing of construction works from the University funds, competent authorities of the Republic of Croatia, and funding from the European funds. The School's management has taken a series of actions to that end (see Chapter 4.4.1.).

The Expert Committee has been notified on the existence of the development process of non-teaching staff, but it seems that there is no document which would determine relevant policies and be available to all employees in that category.

At the School there is a will and understanding of the management for the development of non-teaching staff, but a document which would determine relevant policies does not exist because it would need to be compatible with such policies of the competent Ministry of Science and Education and the Ministry of Finance. Namely, the School management encourages the continuation of studying and lifelong education on non-teaching staff by participating in financing its employees and giving them time off to attend classes or exams. Still, after they finish education and acquire a higher professional qualification, the School cannot recognise it in the form of adequate personal income because for each position there is a prescribed salary coefficient which is in the jurisdiction of the above-mentioned ministries (0#53) and not the School as the employer. That leads to somewhat absurd situations where the School encourages the education of its employees, who after obtaining a certain degree of professional qualifications demand the increase of their personal income, and the School cannot provide it without the consent from the competent ministries. The employee can then apply for another position which requires the newly acquired professional qualifications, but only after the retirement of the employee employed at that position.

*The Expert Committee* understands that the drawbacks in the basic infrastructure for the educational and scientific work are caused by the financial situation of the School. However, the Expert Committee considers that, with the support of the University and more lobbying the state, the School could, taking into consideration its successes in the *scientific-teaching work* so far, legitimately and argumentatively ask for new investments and opportunities to expand and gain income.

The School's management is aware of the economic power and position of the Republic of Croatia and the University and that the School needs to rely primarily on its own resources and abilities for all investments and gaining additional income. In the previous period the School has "stabilised" its financial activity which is now less dependent on the budget when it comes to material costs (see Chapter 4.6.). The introduction of new studies with tuition has had a considerable impact on the increase of the School's income. The studies in question are IUGUS-DM in English (since the academic year 2017/2018) and the Postgraduate Specialist Study of Dental Implantology (hereinafter PGSS-DI) (academic year 2016/2017). The School has also started four new postgraduate specialist studies: Dental-Medical Tourism (hereinafter PGSS-DMT), Dental Prosthodontics (hereinafter PGSS-DP), Endodontics and Restorative Dental Medicine (PGSS-ERDM), and Facial Aesthetics (hereinafter PGSS-FA), which will enrol new students in the following academic years and their tuitions will be used to further strengthen the School's income. Postgraduate Doctoral Study of Dental Medicine (hereinafter PGDS-DM) with filled quotas, as well as lifelong education courses and congresses organised by the School with a continuing growth of participants also contribute to income stability of the School.

# 4. SELF-EVALUATION

# I. INTERNAL QUALITY ASSURANCE AND THE SOCIAL ROLE OF THE HIGHER EDUCATION INSTITUTION (ESG 1.1., ESG 1.7., ESG 1.8.)

# 1.1. Higher education institution has established a functional system of internal quality assurance

#### 1.1.1.

*Internal system of quality* assurance includes and evaluates the overall work and all activities of the higher education institution (study programmes, teaching process, student support, *support for students* from underrepresented and vulnerable groups, study resources, scientific/artistic activity, professional activity, etc.) and supports them by documents.

The School has established a functional system of quality assurance in all aspects of its activity. Teaching staff, students, non-teaching staff, administrative personnel, and external stakeholders are all included in the procedures and mechanisms of continuous improvement of the system of quality assurance in the field of scientific-research, teaching, and professional activity, as well as their administrative support. Procedures of quality assurance, management, and improvement are in compliance with the fundamental legal acts of the Republic of Croatia, the Act on Scientific Activity and Higher Education (Official Gazette, 123/03 through 113/17) (I#1) and the Act on Quality Assurance in Science and Higher Education (Official Gazette, 45/09) (I#2), Standards and Guidelines for Quality Assurance in the European Higher Education from 2015 (hereinafter ESG) (I#3), general acts of the University, and European, national and university strategies.

Quality Assurance Policy of the School of Dental Medicine University of Zagreb (hereinafter School's Quality Policy) defines the principles of system establishment, way of working, and the implementation of activities and assessment of the quality assurance system (I#4). Encouraging the culture of quality in all areas of the School's activity is in accordance with the School's mission and vision (I#5) and the Strategic Programme of Scientific Research of the School of Dental Medicine University of Zagreb for the period 2015-2019 (I#6).

Other legal acts of the School and documents important for quality assurance system are:

- Bylaws of the School of Dental Medicine University of Zagreb (I#7)
- Regulations on Quality Assurance of the School of Dental Medicine University of Zagreb (1#8)
- Study Regulations of the School of Dental Medicine University of Zagreb (I#9)
- Regulations on Postgraduate Specialist Studies of the School of Dental Medicine University of Zagreb (I#10)
- Regulations on the Postgraduate University Study for Acquiring the Academic Title of the Doctor of Science of the School of Dental Medicine University of Zagreb (I#11, I#12)
- other documents, regulations and fundamental legal acts of the School Regulations on Quality Assurance of the School of Dental Medicine University of Zagreb (I#8) prescribe the areas of quality assurance and are in compliance

with the Regulations on Quality Assurance System of the University of Zagreb (I#13) and the ESG from 2015. The areas of quality assurance refer to the policy of quality assurance, drawing up and approving programmes, studying, student-oriented teaching and assessment, student enrolment and progress, recognition and certification, teaching staff, studying and student support resources, information management, public information, continuous monitoring and periodic review of the programme, periodic external quality assurance, scientific-research and professional activity, and mobility and international co-operation.

#### 1.1.2.

Internal quality assurance system actively includes all stakeholders of the higher education institution (students and external stakeholders – employers, alumni, representatives of professional and business associations, civil society organisations/ associations, and internal stakeholders).

Internal quality assurance system was established at the School under the fundamental acts of the Republic of Croatia, legal acts of the University and the School (see Chapter 1.1.1.). The School promotes quality culture by encouraging excellence in scientific, professional, and teaching work through acting in accordance with the mission and vision and by achieving strategic goals. All levels of the School's stakeholders and employees, from students, associates, teaching and non-teaching staff to administrative and technical personnel and external contributors, are involved in the implementation of quality assurance activities and measures.

Responsibility for the internal quality assurance system at the School is under the responsibility of the dean and the School Council (I#14). The Quality Assurance Board proposes activities and measures and monitors the establishment and implementation of the quality assurance system. Vice dean for Quality Assurance manages the internal quality assurance system on the implementational level. Internal quality assurance system at the School is monitored by the University Quality Assurance Office, University Quality Assurance Board, and a departmental vice rector.

The School's Quality Assurance Board is an advisory body of the School Council, the Dean's Management Board and the dean which, in compliance with the Bylaws of the School, Regulations on Quality Assurance System at the University and the School, plans, manages, and analyses assessment procedures of all its activities. Quality Assurance Board has a president, the Vice dean for Quality Assurance, appointed by the dean, and 11 members from the ranks of professors, assistant professors, postdoctoral researchers, assistants, students, and external contributors (I#15, I#16), selected by the School Council. The Board holds sessions, the president informs the members of the School Council at its sessions and at least once a year submits an Activity report (I#17, I#18) to the dean and the University Quality Assurance Office (I#19 to I#24). Transparency of the Quality Assurance Board's activity is provided by the publication of the Report, Minutes and activities on the School's website (I#25) and in the School Newsletter (I#26).

Main procedures in promoting quality culture at the School are planning (annual plan of activities), implementation (employee education, implementation of planned activities), assessment (collecting feedback, self-evaluation, performance analysis, internal/external assessment, annual report), and improvement (development of activities, updating procedures, modifications in documents and activities).

# 1.1.3.

Higher education institution has accepted the quality assurance policy which is part of the strategic management of the higher education institution and which is carried out through the implementation of the strategy, including the strategic programme of scientific research for the period of at least five years.

Quality Assurance Policy at the School was first adopted in 2011. At the suggestion of the Quality Assurance Board, the School Council has accepted the revised Quality Assurance Policy at the School of Dental Medicine University of Zagreb in 2019 (I#4), as part of the strategic management of the School. The implementation of strategic goals at the School is carried out through the Strategic Programme of Scientific Research of the School of Dental Medicine for the period 2015-2019 (I#6). Along with the already mentioned documents, what gives legitimacy to strategic guidelines for the improvement of the quality assurance system are the Dean's Work Programmes (I#27, I#28). Programmes are based on the continuous improvement of science, profession, and education, as well as their influence on social processes, on the consistent promotion of high academic and universal values, and on the increase of the space capacities of the School as the biggest obstacle to achieving strategic goals.

#### 1.1.4.

Implementation of the strategy includes SWOT analysis or similar, strategic goals, goals from programme agreements (where applicable), operational plan, defined implementation responsibility, monitoring mechanisms, and report on its realisation. Stakeholders recognise the strategy as an efficient tool for the *improvement of the* higher education institution.

Within the Strategic Programme of Scientific Research of the School of Dental Medicine University of Zagreb for the period 2015-2019 (I#6) and the Dean's Work Programme (I#27, I#28) for two terms, fields of strategic engagement and activities are clearly defined, and in the SWOT analysis (I#29) factors which could influence their implementation and realisation are emphasized. Activities in the areas of strategic engagement are monitored and indicated in the dean's annual reports (I#30 to I#32), annual reports of the quality assurance system at the School (I#19 to I#24) and then adopted by the School Council.

The School was limited in its strategic development by space and is continually working on increasing its space capacities. With the purchase of the space for a clinical training room and a science laboratory, based on the SWOT analysis (I#29) and the report by the Committee for the Internal Assessment of Quality Assurance System (I#33), conditions for adopting a comprehensive Strategy of the Development of the School of Dental Medicine for the period 2023-2028 were met. By achieving the School's mission and vision and by promoting the quality culture in all its activities, the new comprehensive strategic document will define activities and performance indicators in order to achieve the following goals:

- improvement of the quality of teaching and of the teaching staff,
- improvement of the quality of scientific research and collaboration with the economy,
- strengthening the internationalisation of teaching and of the scientificresearch activity,
- increasing the space capacities,
- strengthening and educating human potential on all levels,
- $\bullet\,$  strengthening international visibility and recognition, and
- increasing the influence on the development of society and social responsibility.

# 1.1.5.

Higher education institution systematically collects and analyses data on its processes, resources, and results and uses them for efficient management, improvement of all its activities and for further development.

Continuous and systematic data accumulation and analysis by areas of internal quality assurance defined by ESG, as well as their planning, are listed in the annual Report on Quality Assurance at the Constituent (I#19 to I#24) and the annual Activity Plan for Quality Assurance of the Constituent (I#34 to I#39). They are delivered to the Quality Assurance Office University of Zagreb at the end of each calendar year. Achieved results are additionally expressed through the annual Dean's Work Reports (I#30 to I#32). Data on the activities from the areas of quality assurance system are available on the School's website (I#25). The collected quantitative and qualitative data are analysed and used as indicators of the realisation of strategic goals and for defining new ones with the purpose of improving and raising the quality of all activities of the School.

# 1.1.6.

Higher education institution uses various methods of collecting information on the quality of teaching (student surveys on teaching, study satisfaction surveys, collaboration assessment, feedback from employers and/or associates, graduated students, etc.).

The School gathers information on the quality of the teaching process and teachers through different types of formal and informal procedures for the purpose of the systematic improvement of the teaching process. Among formal procedures, continuous surveys are carried out in the organisation of the University Quality Assurance Office and the School Quality Assurance Board. At the IUGUS-DM a University "Teacher Assessment Survey" is carried out cyclically every five years in accordance with the recommendations of the University Quality Assurance Office and outside the cycle for the unassessed teachers. These assessments are necessary for the teachers being appointed to a higher scientific-teaching title. The School is continually carrying out "Online surveys for the student assessment of teaching on mandatory and elective courses of the IUGUS-DM". The results of these surveys are presented at the School Council session and provided to teachers and course leaders with the goal of improving the teaching process (I#40 to I#42). The School encourages carrying out similar surveys at course levels on a regular basis (I#43 to I#45). Also, the University survey "Evaluation of Integrated Undergraduate and Graduate Studies by Students Who Have Finished Their Studies" is being regularly carried out. It provides feedback on satisfaction with the classes and teachers, external associates, work of the management, Secretariat and Library, and the study in general (I#46). Surveys on the assessment of classes and teachers are being regularly carried out on PGSSs, PGDS and continuing education courses through an online form connected with a QR code (I#47, I#48). At the end of the academic year the Quality Assurance Board analyses the data obtained through surveys on student satisfaction with the classes, teachers, and study programmes in general and writes Reports which are presented at School Council sessions. Complete results of surveys are stated in Annual Quality Assurance System Reports at the School (I#19-I#24) and are made publicly available on the School's website (I#49).

Opinions of external stakeholders on the achievement and the functionality of learning outcomes and the quality of education of graduated students are collected through informal contacts (School Day, teachers' personal contacts) and through meetings of sixth-year students of IUGUS-DM with employers (I#50). Based on feedback collected through formal and informal procedures, modifications and additions of study programmes are being regularly carried out with the purpose of their improvement. The School Council decides on the proposition of modifications and additions of existing study programmes, as well as the propositions of new university study programmes. The necessary documentation is then forwarded to the University of Zagreb (I#51).

# 1.1.7.

Higher education institution is dedicated to the development and implementation of human potential management policies (management, teaching-scientific, teaching-artistic, administrative, professional, and technical), in accordance with the principles and standards of the profession.

The School is dedicated to the development and implementation of human potential management policies in accordance with the principles and standards of the profession. Regulations on the Organisation of Work Positions at the School of Dental Medicine University of Zagreb regulate the internal organisation of the School, work positions, and professional and other conditions of employment at those positions, the description of assignments within a particular position, and the number of employees per organisational unit and work position (1#52).

The personnel development policy of the School is limited by the regulation of the Government of the Republic of Croatia which fixes the overall disposable coefficient of the School, thus disabling additional new employments. It also affects promotions to higher titles. Hiring new employees and promoting the existing ones take place according to the Human Potential Management Plan for the following calendar year which has to be approved by the University of Zagreb and then by the Ministry of Science and Education (I#53 to I#56).

Therefore, the key to the development and management of human potentials is recognising the abilities of individuals, encouraging and developing potentials through lifelong professional training, and carrying out their employments or promotions according to previously defined and clear criteria (see Chapter 4.2.).

In accordance with the strategic goals of the School, special care is being taken of the excellence of assistants and postdoctoral researchers. Their development goals connected with the scientific research and the acquisition of teaching and professional skills are defined by mentors who monitor their progress and submit annual reports on a standardised form (I#57). The School also encourages and recognises the quality of teachers through awards, being guided by transparent criteria, and awards the best young scientist every academic year for School Day (I#58).

Scientific and professional training of all employees is achieved through stays at eminent foreign higher education institutions, by attending scientific conferences and professional gatherings, participation in webinars, workshops and courses. Non-teaching staff can also get additional training through continuing education courses or seminars.

See Analytic supplement to Self-analysis Table 4.5. Total mobility of teachers and associates in the last five academic years

# 1.2. Higher education institution applies recommendations for quality improvement from earlier evaluations

#### 1.2.1.

Higher education institution has analysed improvement suggestions and is carrying out activities based on earlier evaluations (internal and external).

According to the plan from the first cycle, in 2015 ASHE has conducted the procedure of the School re-accreditation. Following the Report of the Expert Committee (I#59) and the positive accreditation recommendation from the ASHE Accreditation Council (I#60), the Minister of Science, Education and Sports has issued a Confirmation on the fulfilment of conditions for performing higher education and scientific activities of the School (I#61) on 23 November 2015. Since then, the School has implemented a series of measures, procedures and activities for improving quality in all aspects of its activity in accordance with the accreditation recommendation. They are described and documented in Chapter "0" Outcomes of the Previous Evaluation and Accomplishments Review After the Implementation of the Procedure in 2015. All activities,

procedures and measures aimed at improving the quality assurance system are being regularly added and implemented, at the same time fulfilling the mission and vision, as well as the strategic goals of the School.

In 2016 the School underwent the procedure of internal evaluation of the quality assurance system by the University of Zagreb. The intention of that procedure was to question the compliance of the activities of all constituents which make up the University quality assurance system and whether they are in accordance with the national standards and the ESG. Based on the self-evaluation according to certain standards and the visit by the University expert Committee, the overall quality system at the School was assessed as partially developed, which is in accordance with the overall assessment of the quality assurance system at the University. The Report of the Committee for Internal Evaluation of the Quality Assurance System at the University of Zagreb was accepted at the session of the Senate of the University of Zagreb on 13 December 2016 (I#62).

# 1.2.2.

Higher education institution analyses the improvements and bases its further development on them.

The School has been systematically collecting data on scientific, professional and teaching activity, human and material resources, and achieved results. It then analyses them and uses them for an efficient development of quality management in all aspects of its activity (see Chapters 1.1.4.-1.1.7.)

# 1.3. Higher education institution supports academic integrity and freedoms, prevents all forms of unethical behaviour, intolerance and discrimination

# 1.3.1.

Higher education institution supports academic integrity and freedom, ensures work ethics, and protects academic integrity and freedom.

The School supports and protects academic integrity and freedom and ensures work ethics in accordance with the existing legal and regulatory acts. Academic integrity is supported and protected by promoting universal values such as: honesty, trust, integrity, respect, responsibility and courage in accomplishing the teaching, scientific and public mission of the School. All employees and students of the School have complete freedom of activity in science and research, classes and teaching, domestic and international co-operation, and mergers on the national and/or international level in accordance with the teaching, scientific and professional interests. They have freedom of thought and expressing opinions during the class and other activities at the School, the possibility of freely using libraries and other sources of information for achieving their activity. Rights, responsibilities and obligations of teachers and teaching staff, associates, students, administrative, technical and other non-teaching personnel are defined in accordance with the Labour Act (I#63), the Act on Scientific Activity and Higher Education (Official Gazette, 123/03 through 113/17) (I#1), the Code of Ethics of the University of Zagreb (I#64), the Statute of the University of Zagreb (I#65), the Bylaws of the School of Dental Medicine University of Zagreb (I#66), the Regulation on the work of the School of Dental Medicine University of Zagreb (I#67), the Regulation on the procedure of appointment of a confidential person and internal reporting of irregularities of the School of Dental Medicine University of Zagreb (I#68), the Act on Personal Data Protection (Official Gazette, 103/03 through 106/12) (I#69), Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data (I#70). By nurturing academic integrity and freedom, as well as work ethics of both the individual and the institution, a sustainable and stimulating working environment is achieved, guaranteeing the development and improvement of the individual, the School, the University, and the entire community.

# 1.3.2.

Higher education institution is using mechanisms for preventing unethical behaviour, intolerance and discrimination in an efficient way.

The School promotes the highest standards for preventing unethical behaviour in the teaching, professional and scientific-research work. Unethical behaviour, intolerance or any form of discrimination are not tolerated. The procedure of reporting irregularities, responsibilities of the employer concerning reporting irregularities, appointment of a confidential person for receiving reports and handling the procedure, as well as other matters important for reporting irregularities and the protection of reporters of irregularities are regulated by the Code of Ethics of the University of Zagreb, Article 16 (I#64), the Regulation on the procedure of appointment of a confidential person and internal reporting of irregularities of the School of Dental Medicine University of Zagreb (I#68), the Regulation on undergraduate and graduate studies of the University of Zagreb (which mentions disciplinary responsibility of students) (I#71) and the Work Regulations of the School of Dental Medicine (Procedure and measures for the protection of the dignity of employees: Art. 24., 25., 26., 27., 28., 29., 31., 32.) (I#67).

The Code of Ethics of the University of Zagreb (I#64) determines the functioning and the authority of the Ethics Board of the School of Dental Medicine. The Board meets at least once a month and considers respecting the standards of the academic level of ethics in the interpersonal relations between students and employees and in scientific research. The Ethics Board issues confirmations and recommendations on the principles of respecting ethics in scientific research, considers reports concerning unethical behaviour of students and employees, and gives recommendations to the dean on disciplinary responsibility (Warning about the obligation from the employment contract and the possibility of a dismissal if the behaviour continues). The dean and the heads of departments and chairs act in accordance with their powers stated in the Bylaws of the School of Dental Medicine (I#66) and the Statute of the University of Zagreb (I#65).

#### 1.3.3.

Higher education institution is implementing activities for sanctioning unethical behaviour, intolerance and discrimination.

Sanctioning of unethical behaviour, intolerance and discrimination by students and employees of the School and damage to the reputation of the School of Dental Medicine University of Zagreb and its employees is regulated in Articles 33-35 of the Code of Ethics of the University of Zagreb, the Labour Act and other legal and regulatory acts (see Chapter 1.3.1.). In the previous period the Ethics Board has received two cases in which procedures were implemented and the opinions were given, after which the dean made the decisions on their sanctioning (I#72). The Report on the Work of the Ethics Board is submitted by its president once a year to the University Ethics Board (I#73 to I#78).

### 1.3.4.

Accountability system for resolving conflicts and irregularities is functional on all levels of the higher education institution.

Accountability system for resolving conflicts and irregularities at the School is fully functional. The School ensures academic freedom, integrity respect, enjoying all rights and conditions for achieving equality and justice to all employees and students (see Chapter 1.3.1.). If conflicts do arise, they are handled through mediation by the head of the department and the head of the chair, the vice dean or dean, and administrative services in the Secretariat. Course leaders, heads of departments and of chairs, administrative services in the

Secretariat, the Vice dean for Teaching and Students, student associations, the Students' Council, and the student Ombudsman provide assistance to the students.

#### 1.3.5.

Employees of the higher education institution, students and external stakeholders base their work on principles of the academic ethics.

All activities at the School are carried out according to the principles of the academic ethics. Respecting the principles of ethics and deontology in the scientific and professional activity of employees and students at the School is regulated by applicable regulations of the Republic of Croatia, the Bylaws of the School of Dental Medicine and the Statute of the University of Zagreb (see Chapter 1.3.1.). In order to verify the adherence to ethical principles and to prevent plagiarism in scientific activity, when assessing theses, doctoral dissertations, and student scientific papers, the School uses the Turnitin software (I#79) for establishing authenticity of the paper. Using the software for establishing authenticity also has a positive effect on the development of consciousness among students on all levels of university studies (integrated, postgraduate specialist and doctoral) who then pay more attention to a proper citing of sources used during the writing of the paper. Mentors and students sign an Authenticity Statement confirming that the paper is written completely on one's own with noted citations from other authors and documents used in the paper (I#80).

# 1.4. Higher education institution ensures the availability of information on important aspects of its activities (teaching, scientific, and social role)

#### 1.4.1.

Information on study programmes and other activities of the higher education institution are publicly available in Croatian and in one of the world languages.

The Act on the Right of Access to Information (Official Gazette, 25/13, 85/15) (I#81) regulates the domain of informing the public and the right of access to information. Information on the internal organisation; information on the activity and functioning of the School; acts, regulations and other legal acts regarding the activity of the School; decisions, work reports and annual plans, programmes, strategies, instructions and other documents; information from various databases, financial reports, information on public procurement procedures; notifications on tender invitations, notifications on the way and the right of access to information, and other important information are available on the School's website (I#82).

Information on all levels of university study programmes, as well as on the courses of continuing education can be found on the School's website (I#83, I#84, I#85, I#86). Information for students of PGDS-DM and IUGUS-DM in English can be found on the School's website in English (I#87, I#88).

The interested public, as well as future students can get access to information on university study programmes through more direct forms of communication like the University of Zagreb Fair (I#89) and other events where university study programmes and the possibilities of continuing studies are being presented.

Data on university study programmes, programmes of continuing education, and the School's activities of promoting oral health are also available via informative brochures, booklets (I#90 to I#92), videos and other promotional materials, and through participation and promotion of the School in television and radio shows (I#93).

#### 1.4.2.

Higher education institution notifies the interested public on enrolment criteria and quotas, study programmes, learning outcomes and qualifications, forms of support at the students' disposal.

Each academic year the Senate of the University of Zagreb makes the Decision on enrolment quotas and the Decision on the procedure and criteria of accepting enrolment quotas at the undergraduate and integrated undergraduate and graduate studies at the University of Zagreb and for the enrolment of first-year students. The Decisions on enrolment in integrated undergraduate and graduate study in English, postgraduate doctoral study, and postgraduate specialist studies are made by the School Council. After having been accepted at the School Council session, the decisions are passed on to the Senate of the University of Zagreb for confirmation. After having been confirmed by the University of Zagreb, the competition for enrolment in the first year of all study programmes is made available on the School's website (I#82). The public learns about the enrolment criteria and quotas at individual study programmes through competitions published at the University's and School's websites. Information on study programmes is also available through the websites of the Register of Study Programmes (I#94) and the National Information System for Application at Higher Education Institutions (1#95).

Information on learning outcomes and qualifications, forms of student support, academic degree and title for the integrated undergraduate and graduate university study (I#83) and postgraduate university studies (I#84, I#85) are available to students and the public on the School's website and subpages. Also provided at the School's website are lesson plans for the courses in the academic year (I#96, I#97) which specify the lecturers and associates which will hold classes, the schedule and the location of classes, the form and means of holding classes, the method of taking exams, exam dates and the list of literature. The information on study programmes are also available in the Order of Lectures of the University of Zagreb which is made for each academic year (I#98).

Student support for administrative affairs is conducted through the Department of Studies and Continuing Education; for mentorships, consultations or demonstrations through direct communication with the teachers and course leaders, and the Vice dean for International Co-Operation and the ECTS co-ordinator, along with the information on the School's subpage, are in charge of giving support to students included in international mobility (I#99).

#### 1.4.3.

Information on the social role of the higher education institution are available to the interested public.

The basis for the development of every society is continuous improvement of education and science, and the social responsibility of the School is its active participation in all processes connected with it. Accordingly, numerous teachers of the School participate in the work of national and university bodies and Boards (see Chapter 1.5.3.), about which the public is informed through the websites of the University, foundations, councils or agencies.

The social role of the School (see Chapter 1.5.) is manifested through participation in scientific-technical assemblies (see Chapter 5.4.) and public scientific-popular events such as the Science Picnic, the Summer School, World Oral Health Day and others (see Chapter 1.4.1.), whose goal is to popularise science in the public space. It is also important to stress the inevitable presence of teachers and students of the School in the media in the continuous promotion of oral health.

The School has a role in the promotion of oral health in persons with special needs. Project for oral health promotion in blind and visually impaired persons led by Professor Jelena Dumančić, PhD, which has started in 2014, is carried out in co-operation with the Croatian Blind Union and the Zagreb Association of Blind Persons. Through the project students and doctors of dental medicine

are educated on the approach to blind and visually impaired persons. More than 60 students-volunteers have gone through the project. Students get acquainted with the specific needs of blind and visually impaired persons, but also of the persons with other types of disabilities through workshops, lectures and work with the blind and visually impaired. They also develop a sense of social responsibility needed for providing care to persons with disabilities. A guide for health care workers on the approach to blind and visually impaired persons "Persons with Visual Impairments – Our Patients" was printed within the project by the Croatian Blind Union and the School of Dental Medicine. The authors of the guide are Karmen Nenadić, Željka Šubašić and Jelena Dumančić. Except in dental magazines and in the School Newsletter, the project was promoted in the public press (I#100).

Information on the activity of student associations and the Student Council is available to the public on the website (I#101, I#102), as well as through the presentation of students' scientific-professional projects: Symposium of Students of Dental Medicine, Student Congress, Virtual World Congress of Dental Students, Summer School, EDSA Summer Camp Dubrovnik, EDSA Visiting Programme, Sonda – magazine by the students of dental medicine, etc. (I#103). Information on the activities of student associations and the Student Council, as well as of student sections are also available to the public through annual *Quality Assurance System Reports* (I#19 to I#24).

### 1.4.4.

Higher education institution informs the interested public on other indicators (for example, performance analyses, employments of graduated students, drop-out quotas, outcomes of former evaluations, etc.).

The School informs the public on the study performance, performance analyses, the number of awarded and graduated students each academic year through the *Dean's Annual Report*. Collected data, along with continuous analyses of different types of surveys, are used as qualitative and quantitative indicators for the modifications of and additions to study programmes.

Monitoring the employment rate of graduated students is one of the School's activities which uses reports and data available on the website of the Croatian Employment Service (I#104) and data obtained by a survey sent to graduated students (I#105). Available data point to a relatively fast employability of the School's students and serve as the basis for the justification of enrolment quotas for the IUGUS-DM.

See Analytic supplement to Self-analysis Table 3.7. Employment of graduates / alumni in the last 3 calendar years

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

#### 1.5.1.

Higher education institution contributes to the development of the economy (economic, business, and technological mission of the School).

The School, as the first and biggest higher education institution of its kind in the Republic of Croatia, educates doctors of dental medicine at the integrated undergraduate and graduate, postgraduate specialist and doctoral level of education. Study programmes, supported by scientific achievements of the School's employees with a great educational experience of teachers and employees result in experts from the field of dental medicine with the ability of being high-quality stakeholders in various areas of public health care, pharmaceutical industry, dental materials manufacturing industry, and scientific-research activity in the field of biomedicine and health care.

The role in the development of the economy is more indirect in the sense of ensuring oral health, and with it general health, too, of the society which enables the working-age population focusing on economic activities. Still, higher education institution in collaboration with the economy contributes to the development of the economy within European Development Funds in order to contribute to the strengthening of the ability to manufacture products of high added value and of the great potential of the internationalisation of Croatian economic activity. The project "Biodegradable Implants for Bone Tissue Engineering" by Topomatika d.o.o., Izit d.o.o. and the School of Dental Medicine contributes to strengthening the position of the Croatian economy on the global market, and is based on the ever growing demand for materials for the compensation of hard dental tissues and dental implants due to longer life expectancy and the need for a functioning dentition (I#106).

1.5.2.
Higher education
institution contributes to
the development of the
local community.

The School has the role of a promoter of oral and public health in the local and wider community. It is achieved through numerous projects used for the direct and indirect communication through the media with all layers of society. Some of the School's projects which contribute to the local community are the Dental Passport, the Tooth Fairy, the Geronto project, the Oral Health Day, the Project for oral health promotion in blind and visually impaired persons, the Oral Cancer Week and Dentakl (I#103).

The national programme *Dental Passport* (I#107) was developed from the co-operation of the School and the Croatian Institute of Public Health, it is supported by the Ministry of Health, the Croatian Dental Chamber, the Croatian Physicians Association, and the Croatian Health Insurance Fund, and is being implemented since 2017. The goal of the programme is to include all children of preschool and school age in preventive dental examinations in order to improve oral health and oral hygiene habits of the most vulnerable population and to establish foundations for the early detection and prevention of caries. The programme implies a comprehensive preventive dental examination at the primary doctor of dental medicine as a prerequisite for enrolling the child in preschool or school, and at the age of 12, enabling the insight into the health condition of the oral cavity and determining if there is any need for preventive or therapeutic intervention.

Another similar preventive project is "Supervised Toothbrushing in Kindergartens and Primary Schools - Pilot Project" (I#108) which was designed and implemented by the employees of the School, Croatian Institute for Public Health and the National Committee for Dental Medicine at the Ministry of Health in co-operation with the Ministry of Science and Education, the Education and Teacher Training Agency, the Croatian Dental Chamber and the Croatian Dental Society. The purpose of the programme is to achieve proper everyday oral hygiene under the supervision of educated kindergarten staff which prevents caries formation from an early age and children acquire oral hygiene habits for life. Toothbrushing is organised in a safe and efficient way in accordance with the everyday routine in kindergartens and schools under the supervision of the educated staff. The project was awarded the FDI Smile Award 2020 which the World Dental Federation (FDI - Fédération Dentaire Internationale) awards to national organisations who are regular or associated members of the FDI with the purpose of promoting preventive activities on the local level (I#109).

The School shows its care for the oral health of the elderly through the project by the Dental Students Association "Evaluation and improvement of oral health in the elderly", a so-called Geronto project which was started in 2010. The School's students visit nursing homes in Zagreb and the Zagreb County,

giving advice on maintaining oral hygiene, the possibilities of dealing with oral health problems, and the possible connection between oral and general health. Except for volunteer work, the role of the project is research on oral health of residents in nursing homes which could help with the assessment of their needs and the planning of public health measures in that part of the population. The project was awarded the Rector's Award for Socially Useful Work in the Academia and the Wider Community in the academic year 2019/2020 (I#110).

During the Oral Cancer Week (I#111) the employees of the Department of Oral Medicine and the sixth-year students carry out free preventive examinations in the Department Clinic. Through these examinations they not only raise the awareness of the existence of a serious disease that can be prevented through positive life habits but can also diagnose suspicious lesions and refer patients to further treatment. The activity is covered by the media which also contributes to spreading a positive attitude to oral health not only in the local community, but in the wider community as well.

The School's project for oral health promotion in blind and visually impaired persons is carried out in co-operation with the City of Zagreb. Its goal is to raise awareness on the particularities of the needs and knowledge needed for the approach to blind and visually impaired persons with the goal of oral disease prevention and treatment. Education of blind and visually impaired persons of all age groups on the importance of maintaining oral health and oral hygiene procedures is also carried out within the project. Detailed dental examinations and the removal of dental plaque, as well as the possibility of tooth treatments are provided to the project participants. The social benefit of the project is maintaining oral health and raising the quality of life of the project participants (I#112).

Students make their contribution through the their Public Health Committee during the World Oral Health Day with numerous public activities (I#113), and they also participate in other important activities promoting oral health, and with it the general health, too.

#### 1.5.3.

Higher education institution contributes to the foundations of the academic profession and the responsibility of university teachers for the development of the University and the local community.

The School contributes to the foundations of the academic profession and the responsibility of university teachers for the development of the University and the local community in various ways, along with following world trends and being included in professional and scientific umbrella organisations on the national and international level. Apart from their responsibilities at the School, the School's employees participate not only in the work of bodies at the University, the Ministry of Science and Education, the Ministry of Health, the Croatian Academy of Sciences and Arts and other working bodies in the community, but they also have leading roles in them. Professor Ivana Čuković Bagić, PhD, has been Vice rector for Students, Studies and Quality Assurance at the University of Zagreb since 2014. Professor Zrinka Tarle, PhD, has served as the Vice president of the Biomedical Field Council during 2017/2018 when she became a full member of the Senate of the University of Zagreb. She is also a member of the National Council for Science, Higher Education and Technological Development, Regional Scientific Council for Biomedicine and Health Care from 2017-2021 as Vice president for Technological Development and Innovations, and since 2021 as Vice president for Higher Education. She is an associate member of the Croatian Academy of Sciences and Arts (CASA) and President of the CASA Committee on Orofacial Diseases. Professor Katica Prskalo, PhD, is a member of the National Health Council. Professor Denis Vojvodić, PhD, is a full member of the Senate of the University of Zagreb. Associate Professor Marin Vodanović, PhD was president of the Sectoral Council XII Health at the Ministry of Science and Education from 2017-2021, and since 2021 is a member of the Publications Committee at the same ministry. Professor Nikša Dulčić, PhD, is a member of the University Quality Assurance Board and Professor Hrvoje Brkić, PhD a member of the Parent board for the field of basic medical sciences, clinical medical sciences, public health and health care, dental medicine and pharmacy at the ASHE, and is currently acting as Vice president of the Biomedical Field Council. Professor Zrinka Tarle, PhD, Professor Denis Vojvodić, PhD, Professor Marin Vodanović, PhD, Professor Nikša Dulčić, PhD, Professor Ivan Alajbeg, PhD and Professor Silvana Jukić Krmek, PhD, are members of the regional Biomedical Field Council of the University in Zagreb. The School's employees are also members of University Boards and Committees (Board for Study Programmes, Doctoral Dissertations Board, Rector's Award Committee, Committee for Student Scholarships, Commission for Academic Recognition of Foreign Higher Qualifications). At the ALUMNI UNIZG Alliance Assembly on 1 July Professor Ivan Alajbeg, PhD, was elected member of the Presidency and Professor Hrvoje Brkić, PhD, member of the Supervisory Committee.

The School's employees are members of various working groups (Working Group on the Draft proposal for the Regulation on the Specialist Training of Doctors of Dental Medicine, Working Group on the Draft Proposal for the Regulation on the Way and Criteria for Approving the Cultivation and Manufacture of Cannabis for Medical Purposes, Working Group on the Draft Proposal of the Regulation for Health Technology Assessment (I#114)) and committees for specialist examinations at the Ministry of Health of the Republic of Croatia. Professor Zrinka Tarle, PhD, is a member of the National Committee for Dental Medicine at the Ministry of Health.

At the Croatian Dental Chamber the School's employees hold numerous lectures and participate in the work of working bodies, and at the Croatian Physicians Association they lead professional societies in the field of dental medicine and medicine and contribute to the successful work of the Association.

The School supports the development of other higher education institutions in the Republic of Croatia and in Bosnia and Herzegovina concerning the education of doctors of dental medicine. The School's employees participate in lectures at the study of Dental Medicine at the School of Medicine University of Mostar on the basis of inter-university co-operation where they organise and account for the majority of teachers at dental courses. Teachers at the study of Dental Medicine at the School of Medicine University of Split go through specialist and sometimes even doctoral education at the School.

#### 1.5.4.

The development of the social role is part of the mission of the higher education institution (for example, the development of the civil society, democracy, etc.)

The development of the social role of the School is seen primarily in the application of ethical principles in all segments of its activity, thus contributing to the general positive environment which encourages the development of an individual and the community through transparent procedures within the very institution. The School also makes its contribution through applied research which are the basis of planning public health measures in the field of dental medicine and medicine. By participating in the working bodies of various state and professional organisations using the knowledge and experience gained from the parent institution, the School's employees contribute to the development of the civil society and critical thinking on the future of the society in the segment concerning dental medicine. By popularisation of

science through various activities such as numerous appearances on public television and radio (I#94), participation in the Science Picnic (I#115), and the organisation of professional and scientific gatherings, the School contributes to the development of the society in different aspects. The School's contribution to the wider community is seen from the care for the persons with special needs through projects such as the Geronto project and the Project for oral health promotion in blind and visually impaired persons (I#116).

# 1.6. Programmes of lifelong learning carried out by the higher education institution are in co-ordination with the strategic goals and the mission of the higher education institution and social needs

#### 1.6.1.

Higher education institution proves the co-ordination of general goals of the lifelong learning programmes with the mission and strategic goals of the higher education institution.

Lifelong learning at the School includes PGSSs and continuing education. There are three accredited PGSSs at the School: "Dental Medicine", "Dental Implantology", and "Dental-Medical Tourism". Classes and enrolment of students is conducted on two studies: PGSS-DM and PGSS-DI, and PGSS-DMT (which was started at the end of 2019) has not been enrolling students due to the Covid-19 pandemic, so ASHE has been asked to exempt it from the re-accreditation process in 2022 (I#117). PGSS-DM is a four-semester study and PGSS-DI a two-semester study. The employees achieve continuing education through the development, implementation and attendance of postgraduate specialist studies within the mandatory specialties which are conducted at the School.

The School also organises continuing education courses as a form of lifelong learning. The number of courses changes each year, but it includes an average of 20 work and demonstration courses, 2 symposia and 2 congresses organised directly by the School, and several continuing education congresses and courses organised by professional societies with the School as co-organiser (I#118-I#123).

Employees of the School participate in all forms of continuing education, and their work and progress in lifelong education is controlled by the Croatian Dental Chamber which gives permission for the renewal of the work licence every 6 years, which is the result of the continuing education of the School's employees.

#### 1.6.2.

Higher education institution proves the conformity of the general goals of lifelong learning programmes with social needs.

The School implements a lifelong learning programme for doctors of dental medicine through PGSS and continuing education classes. PGSS classes include the latest professional findings from the parts of dental medicine and dental implantology. Within the PGSS-DI some classes are carried out by external stakeholders, specialists from the country and from abroad (I#124). Representatives of equipment and materials manufacturers inform the participants on new products on the market. Doctors of dental medicine can get all the information from the Department for Postgraduate Studies, in printed form and from the School's website (I#84).

Each year the continuing education holds work, theory and demonstration courses. There are also symposia and congresses. The number of courses, symposia and congresses change each year. All forms of lifelong continuing education have revised programmes every year in order to follow the latest findings in dental medicine. A part of such education enters the quota for the scored continuing education (22 each year). Doctors of dental medicine get points for

such lifelong education which are recognised by the Croatian Dental Chamber and are needed for granting of the work licence. The licence is renewed every 6 years. Each year all doctors of dental medicine are introduced to the School's continuing education through a printed booklet of courses (I#118-I#123) and through the School's website (I#86).

# 1.6.3. Revision and development of lifelong learning programmes are implemented systematically and regularly.

The strategic goal of the School is continuous modernisation of PGSS and the development of individual study programmes which follow the development of certain branches and specialities of dental medicine. With their plan and programme such studies would enable the continuation of lifelong education to specialists of the School, external collaborative institutions such as the University Hospital Centre Zagreb and all the interested doctors of dental medicine. The result of achieving the strategic goal is to adopt three new PGSSs, along with the three approved ones: "Dental Prosthodontics", "Endodontics and Restorative Dental Medicine" and "Facial Aesthetics". All new studies follow the achievements of the profession and young employees of the School are also included in the work of the studies. Study programmes and the studies are reviewed by the Postgraduate Studies Board (I#125 to I#128) and approved at the sessions of the School Council (I#129, I#130). All mentioned studies were passed on to the University, and PGSS-DP and PGSS-ERDM were reviewed and unanimously confirmed at the Biomedical Field Council. PGSS-DP was also confirmed by the Senate of the University (I#131).

Besides that, the Postgraduate Studies Board concluded, through the performance analysis of certain studies (I#48), where the participants' surveys on the quality of classes, as well as the number of completed and defended theses were taken into account, that studies need to be unified to the duration of 2 semesters. From all the above-mentioned, as well as from the need for the revision of the plan and programme, adjustment of the PGSS-DM study programme is being carried out.

Continuing education in all forms that is being carried out at the School is revised each year through the Continuous Education Committee. At the end of each year a performance analysis of the continuing education is being continuously carried out through surveys of all participants of courses, symposia and congresses (I#132). Based on that, as well as on other parameters such as the number of the participants, income and profit, continuing education is reviewed and revised at the Committee. Lists of scored and unscored courses are made based on such analysis, published on the website and a booklet with the courses of continuing education is published and sent to addresses of all doctors of dental medicine (I#118-I#123,I#86).

At the end of the academic year the Quality Assurance Board continually analyses data obtained through student satisfaction surveys on classes, teachers, postgraduate study programmes and courses of continuing education. Survey results are presented at the sessions of the School Council and the overall results of surveys are stated in the Annual School Quality Assurance System Reports (I#19 to I#24) and are publicly available on the School's website (I#49).

## II. STUDY PROGRAMMES (ESG1.2., ESG1.9.)

## 2.1. General goals of all study programmes are in accordance with the mission and strategic goals of the higher education institution and social needs.

#### 2.1.1.

Higher education institution proves the conformity of general goals of all study programmes with the mission and strategic goals of the higher education institution.

General goals of all study programmes carried out at the School are in accordance with the mission and strategic goals of the School which are defined in the Strategic Programme of Scientific Research of the School of Dental Medicine University of Zagreb for the period 2015-2019 (II#1) and in the Dean's Work Programme from 2018 and 2021 (II#2, II#3). Accordingly, the School is continuously and systematically working on the improvement of educational, scientific, and professional activities, meeting the needs of the social community and the labour market. Contents of study programmes carried out at the School, as well as the contents of certain courses, reflect the recent scientific findings and professional and technological innovations in dental medicine, aiming at excellence and innovation in education, research and treatment with the goal of turning students into modern dentists/doctors of dental medicine who will be prepared for the challenges brought by global social changes.

#### 2.1.2.

Validity of carrying out study programmes is explained in relation to social/economic needs and includes the analysis of capacities of the higher education institution necessary for the implementation of the programmes.

According to the Dental Medicine Development Strategy 2017-2025 (II#4) the enrolment quota of the students of dental medicine enrolled in the integrated undergraduate and graduate study is co-ordinated at the level of the entire Republic of Croatia with the natural outflow in the profession (retirements) and the existing needs of the overall number of inhabitants in Croatia. According to that strategic document the Croatian Dental Chamber and the School follow the need for staff in dental medicine to avoid having a too large number of doctors of dental medicine which would lead to the decline of their work's value. The enrolment quota of students in relation to the size of the usable space, as well as to human resources, corresponds to indicative demands determined by the Act on Scientific Activity and Higher Education and the Statute of the University of Zagreb (II#5,II#6).

#### 2.1.3.

If it carries out study programmes which lead to regulated professions, higher education institution accepts recommendations from professional associations which follow their licensing.

The completion of the IUGUS-DM, which is carried out by the School, leads to obtaining the degree doctor of dental medicine. Doctors of dental medicine belong to the category of regulated professions. Licences for the independent work in the Republic of Croatia are issued by the Croatian Dental Chamber (CDC) which was founded in 1995 by the School and the Croatian Dental Society. Ever since then there has been close collaboration between the CDC and the School concerning the development of the profession and the education of doctors of dental medicine, many teachers of the School being high-ranking members of various bodies in the CDC.

#### 2.1.4.

Higher education institution educates experts who are competitive on the national and international labour market.

There is great need for doctors of dental medicine in the national and international labour market. According to employability analysis of the graduated students in the period between 2015 and 2021 (II#7), 70% of graduated students have been waiting up to 3 months after graduation for their first employment they got based on the degree of the doctor of dental medicine, and over 93% of students were employed. Most of the employed work in the Republic of Croatia, and 12% work outside the Republic of Croatia. All this proves that the School educates experts who are competitive on the national and international labour market.

See Analytic supplement to Self-analysis Table 3.7. Employment of graduates / alumni in the last 3 calendar years

# 2.2. Anticipated learning outcomes of the study programmes carried out by the higher education institution correspond to the level and profile of the qualifications obtained through them.

#### 2.2.1.

Higher education institution has clearly defined learning outcomes of the study programmes which are co-ordinated with the mission and goals of the higher education institution.

Learning outcomes of the study programmes carried out at the School are clearly defined according to the recommendations of the Association for Dental Education in Europe (ADEE) and the DentEd Thematic Network – two umbrella organisations which continually work on the co-ordination and harmonisation of study programmes in the field of the education of doctors of dental medicine in order to make the programmes more comparable among different educational institutions and countries.

Learning outcomes are divided into knowledge, skills and competences, which are considered the most important and complicated learning outcome. Two basic competences that the graduated student of dental medicine must have are the participation in the achievement of general health through maintaining and establishing oral health of an individual, and independent managing of a dental practice. Based on these two competences learning outcomes were composed and co-ordinated with the mission of the School and the goals of its activity.

#### 2.2.2.

Higher education institution verifies and ensures the conformity of learning outcomes at the level of the study programme and the course.

The School regularly verifies and co-ordinates learning outcomes at the level of the study programme and the course. It is performed by the Vice Dean for Teaching and Students and the Board for Teaching and Students in co-operation with the course teachers and students. One of the instruments used for that purpose are student surveys on lesson quality which are carried out at the end of each semester in which students assess their satisfaction with the conformity between the conducted classes and the learning outcomes for each course. Based on that, suggestions for making changes and additions to the study programme are made which are confirmed by the School Council and then registered at the University of Zagreb.

Besides that, for each course it is clearly stated in the performance plan in which way the course learning outcomes contribute to the achievement of learning outcomes at the study programme level (II#8, II#9). General learning outcomes of IUGUS-DM are:

- knowledge, skills and competences regarding professionalism, ethics, and law,
- knowledge, skills and competences regarding communication and social skills,

- knowledge, skills and competences regarding the basic knowledge and the possibility of gathering information from literature,
- knowledge, skills and competences regarding the gathering of clinical information,
- knowledge, skills and competences regarding making diagnosis and treatment planning,
- knowledge, skills and competences regarding treatment, establishing and maintaining oral health, and
- knowledge, skills and competences regarding preventive measures and health promotion.

See Analytic supplement to Self-analysis Table 2.1 Learning outcomes at the level of the study programme for the evaluated academic year

#### 2.2.3.

Learning outcomes which are achieved by the completion of study programmes correspond to the level descriptions of the CQF and the EQF at which the programme is carried out (level).

Learning outcomes achieved by the completion of the IUGUS-DM study programme correspond to the level descriptions of the CQF and the EQF. The programme is implemented at the level 7.1 (university graduate studies).

During 2015 and 2016, a European Social Fund project called "Improvement of the study programme of dental medicine in accordance with the CQF" was being carried out. Within the project, in accordance with the CQF, the qualification standard for the Doctor of Dental Medicine was developed. The qualification standard for the Doctor of Dental Medicine will be entered into the register of the CQF as soon as the profession standard for the Doctor of Dental Medicine is developed.

One of the School's teachers has served as president of the Sectoral Council XII Health at the Ministry of Science and Education of the Republic of Croatia from 2017-2021 and has directly participated in the assessment of the qualifications standard and the profession standard in the Sector of Health. Experience gained in such way was transferred to the improvement of the IUGUS-DM. During 2021 a group of six teachers at the School has participated in the making of the profession standard for Doctor of Dental Medicine within the project carried out by the Ministry of Labour, Pension System, Family and Social Policy of the Republic of Croatia.

#### 2.2.4.

Higher education institution acts in accordance with the demands of the profession and the internationally recognised standards for that profession when defining learning outcomes and ensures the modernity of programmes (profile).

Learning outcomes at the IUGUS-DM are defined in accordance with the recommendations of the Association for Dental Education in Europe (ADEE) and the DentEd Thematic Network – organisations which develop and perfect internationally recognised standards for the education of doctors of dental medicine. The School's teachers participate on a regular basis in international gatherings organised by the ADEE with the purpose of perfecting the School's study programme and ensuring its modernity. If they exist, suggestions by the Croatian Dental Chamber and the Croatian Dental Society are also taken into consideration.

#### 2.2.5.

Anticipated learning outcomes clearly reflect the competences needed for the inclusion on the labour market, continuation of the education or other needs of an individual/society.

Learning outcomes anticipated by the IUGUS-DM study programme are developed in accordance with the international standards with regard to other stakeholders of the dental profession in the Republic of Croatia, and as such reflect the competences needed for the inclusion in the labour market, the continuation of education and other needs of an individual or the society as a whole. The best proof of that are the results of the employability analysis of the School's graduated students in the period between 2015 and 2021 (II#7) according to which more than 70% of graduated students wait less than 3 months for their first employment on the basis of the degree of the doctor of dental medicine.

## 2.3. Higher education institution proves the achievement of anticipated learning outcomes at the study programmes it implements

#### 2.3.1.

Higher education institution ensures the achievement of anticipated learning outcomes at the study programmes it implements.

The achievement of the anticipated learning outcomes at the IUGUS-DM study programme is ensured by suitable teaching capacities, space and equipment for conducting theory, laboratory, preclinical and clinical classes (see Chapter IV). There are more than 70 dental units for the clinical work with the patients at the School, more than 30 units for preclinical exercises and numerous other dental appliances, instruments and materials, with the School investing substantial financial resources into their maintenance, restoration and modernisation on a regular basis. Students can also use the library, a dental and a scientific-research laboratory (see Chapters 4.4. and 4.5.). Enough patients are provided in co-operation with the University Hospital Centre Zagreb for exercises on all clinical courses. Proof of a successful achievement of anticipated learning outcomes by doing so are the results of student surveys during and after the completion of the study, reports by mentors from the School and outside it, feedback from employers and the research results on the employability of graduated students of the School (see Chapters 3.1., 3.2., 3.3., 3.4., 3.5., 3.6., 3.8. and 3.10.).

#### 2.3.2.

Higher education institution, based on direct measurements from classes (for example, students' examinations, seminar papers, presentations, etc.) continually revises and improves the teaching process.

Achieving learning outcomes at the course level is verified through various measurement procedures and verification forms such as laboratory, preclinical and clinical exercises, seminar papers and presentations, midterm exams, tests, written, oral and practical exams, project assignments, and diaries of practicals outside the School and reports of mentors from practicals from the School and outside it (II#10). Every form of measuring and monitoring progress, as well as of assessing the student's work is listed in the implementation plan of each course. After the completion of the study, the students write a thesis which they then defend at a public defence.

The analysis of the adoption of planned learning outcomes is done at the teaching unit level (continuous verification after the completion of each teaching unit), at course level (after the completion of classes of a course), at the course group level (with related courses which are carried out over several semesters, for example, Restorative Dental Medicine I and Restorative Dental Medicine II), and at the study programme level (weekly and final reports by mentors from the School and outside it on the activities during practicals in collaborative offices of the School). The results of these analyses, as well as the feedback from students, teachers and mentors from the School and outside it, are the starting point for initiating study programme amendment procedures with the goal of its improvement and perfecting.

# 2.4. Procedures of planning, proposing and accepting new programmes and the revision or cancelling of the existing programmes include feedback from students, employers, professional associations, alumni.

#### 2.4.1.

Developmental activities connected with the study programmes are systematic and regular and include various stakeholders.

Activities and procedures of planning, proposing and accepting new programmes and the revision of the existing study programmes are being systematically implemented at the School and include various stakeholders. Competent authorities for these activities and procedures are primarily the Quality Assurance Board, the Board for Teaching and Students, the Doctoral Study Board, and the Board for Postgraduate Specialist Studies. By using various instruments and ways of collecting data on the study programmes (surveys, reports, Kontrolnik, Practicals Manual, etc.), the student success rate, educational workload, adoption of learning outcomes with the differentiation of knowledge, skills and competences with the special emphasis on those regarding the work with patients, and other parameters relevant for the development and perfecting of the programme are being analysed. Students (current and graduated), the School's teachers, teachers from other institutions providing education of doctors of dental medicine, visiting professors and employers are consulted when planning amendments to individual courses, as well as to programmes. The last amendments to the IUGUS-DM study programme were made in the academic year 2020/2021.

#### 2.4.2.

Planning and proposing new study programmes includes the analysis of validity, capacities and conformity with the strategic goals on the local and state level and with other needs in society. In 2005 when IUGUS-DM was introduced in its present form (before then the study was carried out as a five-year study), the School was the only independent higher education institution in the Republic of Croatia for the education of the doctors of dental medicine. The existence of such a study and its implementation in accordance with the highest international standards was of strategic interest. It has remained the only such study carried out at the School and there are no plans for any new integrated study programmes. When planning and suggesting postgraduate specialist studies and postgraduate doctoral study, an adequate analysis of validity, capacities and conformity with strategic goals at the local and state level, as well as with other needs in society, is carried out. PGSS-DP and PGSS-ERDM have been approved by the Biomedical Field Committee and the Senate of the University of Zagreb. An analysis of validity, capacities and conformity needed for the Ministry of Science and Education through the documents "Study on the validity of carrying out the proposed study programme of the postgraduate specialist study" was written for them (II#11,II#12). Both studies are in the final stages of approval. A third study programme, PGSS-FA is awaiting the University review. Also, meetings for the proposal of another postgraduate specialist study from the field of paediatric and preventive dental medicine and orthodontics have been initiated.

#### 2.4.3.

Higher education institution proves the validity of carrying out the same or similar study programmes within the same university.

At the University of Zagreb there are no other higher education institutions which would carry out integrated undergraduate and graduate or postgraduate studies for the education of the doctors of dental medicine, university masters of dental medicine and doctors of science in the dental medicine field.

#### 2.4.4.

Higher education institution publishes the current version of study programmes.

The current version of the study programme is published each academic year in the Order of Lectures (II#13) and the classes implementation plan which is available to students on the website of individual courses (II#8, II#9). The curriculum of the doctoral study is available on the website and a new study curriculum is uploaded on the website after each change (II#14).

#### 2.4.5.

Higher education institution registers the modifications of study programmes and analyses their purposefulness.

The purposefulness of the study programme is monitored and analysed by the Quality Assurance Board and the Board for Teaching and Students together with the School's management. Modifications to study programmes are planned and implemented in accordance with these analyses, confirmed by the School Council and recorded at the University of Zagreb. The most common modifications are co-ordinations of ECTS points in accordance with the results of the analysis of the teaching workload, the introduction of new elective courses and change of the semester in which a certain course is carried out. The most recent changes of the study programme were made in the academic year 2020/2021 when the revision of ECTS points was made at courses of the first and second year of the study, and the course Histology with embryology was moved from the first to the second year of the study with the goal of unloading the first year.

The School is continually carrying out competitions for new courses by following the results of the anonymous survey in which postdoctoral researchers express their needs, changes happening in science in the world and the natural outflow of leaders and associates at different courses of the doctoral study. When introducing new courses, priority is given to generic subjects.

## 2.5. Higher education institution ensures the conformity of ECTS points with the actual student workload.

#### 2.5.1.

Higher education institution co-ordinates ECTS points with the actual student workload based on the analyses of the feedback by stakeholders in the teaching process or other procedures.

The School's management is continually working on perfecting the IUGUS-DM study programme so that it would follow European and world trends, and meet the needs of education of contemporary doctors of dental medicine according to the highest standards, at the same time encouraging excellence, quality, innovativeness and inventiveness and following examples of good practice. Taking into consideration that the study of dental medicine is demanding and comprehensive, it is considered extremely important to consider students' teaching workload, as well as the workload connected with activities regarding the monitoring of teaching obligations in order to distribute the workload evenly and logically, enabling optimal mastering of the study programme and achieving anticipated learning outcomes. Student workload is expressed through ECTS points, and it includes time spent participating in classes (lessons, seminars, and exercises) and time needed for successful following and mastering teaching obligations, taking exams (for example, studying literature, writing seminars, studying for midterm exams, studying for exams, etc.). Student workload and the conformity of ECTS points at certain subjects is being continually monitored, analysed, and adequate recommendations are introduced in the study programme accordingly. The most recent research was carried out in the period between 23 October and 1 November 2020 in the form of an online survey among students who were in their 2nd, 3rd, 4th, 5th and 6th year of study in the academic year 2020/2021, and among doctors of dental medicine who have graduated in the academic year 2019/2020. The survey was voluntary and completely anonymous. Students have assessed course workload for each mandatory subject on the last year of the study they have finished by stating how many additional hours it took them to master each subject. The results of the research on course workload on the IUGUS-DM (II#15) were presented at the School Council. In accordance with them and in agreement with the subject teachers, the Teaching Board has suggested amendments to the study programme which were accepted by the School Council and then by the University of Zagreb.

#### 2.5.2.

Feedback on the results of the analysis of collected data and implemented changes are available to students. The results of the analysis of the collected data which serve as the basis for the planning and implementation of changes are discussed with students at the meetings with students, student representatives for each year and the Student Council, student members of the Quality Board, and the student assistant to the dean for student affairs. Suggestions discussed and formed in such a way are sent to the Board for Teaching and Students and then to the School Council in which students account for more than 10% of the overall number of members. All changes are published on the School's website.

#### 2.6. Student practicals are an integral part of study programmes

#### 2.6.1.

Higher education institution ensures learning and acquiring skills through student practicals, where applicable. Student practicals are a part of study programmes and are organised outside the School in collaboration with the labour market, where applicable.

In the last semester of the last year of study (12th semester of the sixth year) all students have to undergo obligatory 500 hours of practicals outside the School. The purpose of the practicals is to prepare students for independent work in a dental office in the best possible way so that after graduating they could be easily and quickly recognised at the labour market. Practicals are conducted in polyvalent dental offices throughout Croatia which have a collaboration agreement (II#16) for the current academic year with the School of Dental Medicine University of Zagreb for the implementation of practicals. Every collaborative office receives a sticker stating that the office collaborates with the School which is placed at the entrance doors of the office (II#17). These offices may or may not have a contract with the Croatian Health Insurance Fund. Doctors of dental medicine who want to serve as mentors outside the School can send their application at nastava@sfzg.hr. If they meet the required conditions, they could be recommended for mentorship outside the School in the following academic year. After enrolling in the last year of the study, in the first half of the 11th semester, students are encouraged to find a dental office and a mentor outside the School by themselves. After a prior agreement with the chosen office and mentor outside the School, they have to make an application on a prepared form (II#18) in order to confirm the acceptability of the office and the mentor for performing the practicals. The form can be obtained from the Students Office of the School of Dental Medicine University of Zagreb. The competent School office will provide the dental office and the mentor outside the School to students who cannot find the office and the mentor by themselves. The schedule determined by the competent School office cannot be changed, neither the time nor the location. Each academic year a list of students, dental offices and professional mentors for the current academic year is published. After the completion of practicals the student gets a confirmation on the completion of practicals on the form that can be found in the Student Practicals Manual. The way of carrying out the practicals is described in the Student Practicals Manual in detail (II#10).

#### 2.6.2.

Student practicals are carried out in a systematic and responsible way which enables achieving anticipated learning outcomes connected with the student practicals.

Student practicals are carried out in a systematically elaborated and responsible way, and anticipated learning outcomes are achieved through them, which is described in the Student Practicals Manual (II#10). Students' obligations and rights, and the mentors', both from the School and outside it, exercises are described in the Student Practicals Manual in great detail. The manual also contains the list of clinical interventions/procedures that the student must do during the practicals which are compatible with the learning outcomes of individual clinical subjects. Each intervention/procedure is assessed and registered. Students' work at the practicals outside the School is monitored, assessed and supervised daily by the mentors outside the School and weekly by the School's mentors. All students have professional liability insurance by the insurance company contracted by the School for that academic year. Successful completion of practicals is registered in the student transcript book ("indeks") of each student. All the activities on the practicals are registered in the Practicals Manual that each student gets in written form at the start of practicals. Within two weeks upon the completion of practicals at the latest, the student has to return a fully and properly filled and certified manual to the School's Department of Studies and Permanent Education. Students who do not do that in the prescribed period will lose the right to certification in the student transcript book and their practicals will not be approved.

## III. TEACHING PROCESS AND STUDENT SUPPORT (ESG 1.3., ESG 1.4., ESG 1.6.)

# 3.1. Requirements for enrolment into or continuation of the study are compliant with the demands of the study programme, clear, published, and are implemented consistently.

#### 3.1.1.

Criteria for enrolment into or continuation of the study are published.

Criteria for enrolment in the first year of the IUGUS-DM, as well as the criteria for the continuation of the study are established by the School Council at the sessions in October or November of the current year for the following academic year. Criteria for enrolling in all study programmes are published on the School's website (III#1,III#2). Criteria is also presented at the University of Zagreb Fair, in the School and University competitions, in the Student Guide which is published in September and handed out for free to first-year students at the introductory lecture (III#3), in the National Information System of Applications for Higher Education Institutions, on the *Postani student* website (III#4) and in other appropriate places.

Due to capacity occupancy, students cannot transfer to IUGUS-DM from other schools which is also decided in the middle of the academic year (III#5) and published on the School's website. Criteria for enrolment in the higher year of the study are determined by the study programme and available on the School's website (III#1). These criteria are changed only in case of amendments of the study programme.

Criteria for enrolment in the first year of the IUGUS-DM in English are published on the School's website (III#6). For enrolment, an entrance exam with 120 question has to be passed (40 from biology, chemistry and physics). Also, there are instructions and explanations of the requirements for the transfer from a related study programme (III#7) or from the study programme of dental medicine from another university in the EU to the IUGUS-DM in English (III#8). Criteria for enrolment in the PGDD-DM are defined by the Regulation on the University postgraduate study for acquiring the academic degree doctor of science (Articles 7 to 15) (III#9) whose amendments were adopted after a public discussion at the XXXIV session of the School Council on 17 June 2021 (III#10). In the competition for enrolment in the doctoral study which is announced once a year, criteria for enrolment are additionally announced (III#11). According to the same Regulation, Article 21 states the requirements of enrolment in the higher year. Students who do not manage to enrol in a higher year of the study lose their student status. If it is justifiable and documented, three months after losing their status at the latest they can submit an application for the continuation of the study according to the valid study programme and implementation plan.

Criteria for enrolment in the PGSSs are defined by the Regulations on university postgraduate specialist studies (III#12) and additional criteria are published once a year with the study enrolment competition (III#13,III#14).

#### 3.1.2.

Criteria for the enrolment into or continuation of the study are being consistently applied.

Criteria for the enrolment of the study are being consistently applied. The most recent change of criteria for enrolment was in 2016 and the criteria have not been changed since then. In 2016 the quota occupancy, insufficient space capacities for taking more students than the prescribed quota, but also higher criteria for enrolment (compared with other related schools) have led to the abolishment of the possibility of students transferring from other schools to the IUGUS-DM at the School (III#5).

An entrance exam for the IUGUS-DM in English is carried out regularly, three times a year and the results are available on the School website (III#15). The decision on approving the transfer from another study programme to the IUGUS-DM in English is made by a three-member committee after a detailed comparison of programmes (III#16).

Enrolment criteria for the PGSS-DM are being consistently applied in accordance with the adopted quota and criteria stated in the Regulations (III#9). Those candidates who do not meet the criteria necessary for the enrolment or who do not show the necessary prior knowledge such as, for example, the use of the English language, during the interview, which is an integral part of the enrolment process, are not enrolled in the PGSS-DM.

Before the enrolment in the PGSSs candidate applications are examined to establish whether they meet the conditions for enrolment. The candidate cannot be enrolled if they do not meet all the enrolment conditions, even if the enrolment quota has not been reached. There is an Office for PGSSs which controls the enrolment and meeting obligations of participants. There is also a control of class attendance of participants which is done through the attendance reports by a course leader or a class teacher. At the PGSS-DI attendance lists are made for every lecture, seminar, or exercise. Classes are also controlled electronically through teaching quality surveys.

#### 3.1.3.

Criteria for the enrolment into or the continuation of the study provide the selection of candidates with appropriate prior knowledge, in accordance with the demands of the study programme.

For the enrolment on the IUGUS-DM in Croatian the following are valued: secondary school grades (up to 220 points), passed exams at the state graduation exam in Croatian language – level A (up to 100 points), in mathematics – level A (up to 40 points), in English language – level A (up to 90 points), in biology (up to 150 points), in physics (up to 150 points) and in chemistry (up to 150 points), with the condition of passing all the listed subjects. There is also a psychomotor ability test worth up to 100 points (III#1).

Criteria which are being applied for enrolment are in compliance with the demands of the study programme and ensure the choice of candidates who are among the best secondary school graduates in the Republic of Croatia considering the grades achieved in the secondary school and the results of the state graduation exam. According to ASHE data, in 2021 the School was third on the list of schools chosen by secondary school graduates with the best GPA (4.76) (III#17). In 2020, the School was in the fourth place on the same list (GPA 4.73) (III#18).

The mandatory entrance exam for the enrolment in the IUGUS-DM in English ensures the incoming quality of students (threshold score 60 out of 120 points), as the only objective solution for ranging applicants from different parts of the world. The entrance exam also eliminates candidates whose prior knowledge and motivation are not on a satisfactory level, needed for the successful attendance of a very demanding and competitive study programme. The results of the entrance exam show that part of the candidates is not accepted for not achieving the threshold score (III#19).

Criteria for enrolment in the PGSS-DM, defined by the Regulations for the doctoral study, imply that only the candidates with a high GPA (4.0 for full-time

postdoctoral researchers and 3.5 for part-time postdoctoral researchers) during undergraduate studies in the field of biomedical sciences can enrol in the doctoral study. Enrolment in the higher year of the study is possible after meeting the requirements prescribed by the study curriculum (III#9, III#11). Criteria for the enrolment into and the continuation of PGSSs are defined by the study programme, the main requirement being the completion of the study of dental medicine. That implies that the candidates possess the necessary prior knowledge acquired during the study of dental medicine, internship and passing the state/professional examination, and are qualified for following the teaching programmes which are taught at the PGSSs. PGSS enrols mostly candidates who are employed in dental offices, who are undergoing clinical specialities of dental medicine or have the need for further professional development, especially in dental implantology. There is also the requirement of having at least 2 years of work experience in a dental office (III#14).

See Analytic supplement to Self-analysis:

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

Table 3.2. Structure of enrolled students and interest in first level study programmes in the evaluated and the two previous academic years

Table 3.3. Structure of enrolled students and interest in graduate and postgraduate programmes in the evaluated and the two previous academic years

# **3.1.4.**Higher education institution has an efficient mechanism of acknowledging prior studying.

Although in 2016 the possibility of students transferring to the IUGUS-DM from other schools was eliminated, students who have previously studied at some other related school can ask for the recognition of exams passed at some other school, which are carried out within the School's IUGUS-DM, after enrolling in the study according to the previously described criteria (III#20).

In that case, based on the *Regulations on the Study at the School of Dental Medicine* (III#21, III#22) the student submits a written request for the recognition of passed exams (attaches a certified transcript of grades of exams passed at some other higher education institution and a certified curriculum of the subject for which the recognition is requested) to the Department for Studies and Permanent Education at the beginning of the academic year. After that, the Vice dean for Teaching and Students forwards the request and the documentation to the leader of the subject for which the recognition is requested. Based on the analysis of the documentation and the subject programme comparison, the leader of the subject makes a written proposal of the recognition of the exam or a part of the exam, and if the exam is recognised, the grade also must be stated. A decision on the recognition is issued based on the stated opinion of the subject leader and the subject is registered in the student transcript book and the Higher Education Institutions Information System (ISVU) (III#23) based on the issued decision.

Recognition of the prior studying for students transferring to the IUGUS-DM in English from other programmes or after the completion of the part of or entire education is based on defined mechanisms stated on the School's website (III#24). For subjects from related studies (for example, Faculty of Veterinary Medicine, School of Medicine, Faculty of Food Technology and Biotechnology) the decision is made by the subject teachers, based on the programme comparison. After that the decision on recognising exams (in part or fully) is made, as well as the decision on subjects that need to be taken after the transfer. The same subjects from other schools of dental medicine in the EU are fully recognised. If the transfer student accepts the requirements from the decision, a decision which defines it is issued (III#25).

Criteria and requirements of the transfer of ECTS points from Article 10 of the Regulations are applied with the enrolment in the PGSS-DM, and Article 11 of the same Regulations (III#9) regulates the enrolment directly into the third semester if the candidate attaches proof on meeting the requirements, recognising 60 ECTS points. If the candidate has accomplished important scientific achievements or if they meet the requirements from Article 73, Paragraph 3 of the Act on Scientific Activity and Higher Education, they can enrol in the PGSS-DM, but they do not attend classes or take exams (III#26).

According to the *Regulations on the university postgraduate specialist studies* (III#12) enrolment criteria have been applied since 2006 at the PGSS-DM and since 2016 at the PGSS-DI.

## 3.2. Higher education institution collects and analyses data on student progress, using them to ensure the continuity of studying and the completion of studies

## **3.2.1.**Student progress monitoring procedures are clear and available.

### Integrated undergraduate and graduate university study of Dental Medicine in Croatian

Student progress is monitored at the level of the study, the year which the student attends and at subject level. Student progress monitoring procedures through the IUGUS-DM are defined by the Study Regulations (III#21, III#22) which is available on the School's website (III#27). The student regulates their status by enrolling in the academic year. The student can register their course obligations for a semester or for the entire year. The student can register only the subjects for which they have prerequisites according to the study programme and curriculum. The student who has not met their scheduled obligations from the registered subjects has to register those subjects again in the following academic year in accordance with the Article 52 of the Study Regulations.

Enrolment requirements are defined for each individual subject of the study, and they are an integral part of the implementation plan of a subject for a certain academic year. The Order of lectures at the course level (III#28), as well as the current implementation plan of a subject, is updated for each academic year and are available for each subject on the School's website (III#29). The Student Guide which is given to students of the first year at the introductory lecture also states the procedures of monitoring student progress through each individual year of study (III#3). Specific forms of monitoring student progress for each subject are also stated in the implementation plan of the subject. Also, the subject teacher introduces the students to the forms of monitoring progress at the beginning of the lessons. Each student receives a booklet, a so-called Kontrolnik, at the beginning of each semester which the teacher signs after each teaching unit (lecture, seminar, or exercise) to confirm that the student was present at the class, i.e., that they have carried out the necessary assignments scheduled in the subject plan. The Kontrolnik states all the dental procedures for clinical exercises for the 4th, 5th, and 6th year of the study which the student has to master practically at the level of each subject (III#30 to III#35). That enables direct monitoring of student progress in acquiring clinical dental skills.

## Integrated undergraduate and graduate university study of Dental Medicine in English

The current implementation plan of all subjects in the IUGUS-DM in English is updated every academic year and is available for each individual subject on the School's website (III#36). Through continuous monitoring the School has identified two subjects which present the biggest challenge for students and cause them to attend the same year again. In the first year it is Chemistry, and in the second Physiology. The course leader is in continuous contact with the teachers on those subjects and monitors exam passability. They contact the students via e-mail when they feel the students need encouragement and talk to teachers about the student's progress and the chances of passing exams at the current pace. The goal of such co-ordinations is to focus the teaching method and to engage the teacher and the student in such a way that the passability is increased without lowering the criteria. The possibility of such a personal approach is enabled due to a small number of students in this programme. A Vice dean is always a member of the Commission with the exams in front of a Commission.

#### Postgraduate specialist studies

Student progress is monitored through the class attendance analysis where each student fills a survey on lecture quality for each lecture, which, besides teaching and teacher assessment, enables student monitoring. Students also take midterm exams and exams after the completion of each course, which is in accordance with the Regulations on postgraduate specialist studies.

#### **Doctoral studies**

Student progress in the PGDS-DM is monitored through measurable indicators for monitoring postdoctoral researchers which are clearly stated in the study programme (III#37). Study success analysis is done every year through the number of defended and graded dissertations and defended doctorates.

# 3.2.2. Collecting and analysis of the data on student progress on the study is carried out regularly.

## Integrated undergraduate and graduate university study of Dental Medicine in Croatian and English

Data on student progress on the study are being regularly collected on the level of the study year and subject level. ISVU administrators enter data on passed/failed exams in the ISVU at the end of each exam period. At the end of the academic year student passability is analysed at the year level and at subject level (III#38). If necessary, subject leaders deliver detailed passability reports at subject level to the Vice dean for Teaching and Students (III#39, III#40). The results of the analysis of study passability and completion are one of the most important instruments in planning amendments to the study programme.

See Analytic supplement to Self-analysis Table 3.5. Completion of the study programme

#### Postgraduate specialist studies

After each exam and class corresponding reports are made for postgraduate specialist studies, controlled by the Vice dean for Quality Assurance and the Vice dean for Postgraduate Specialist Studies.

#### **Doctoral studies**

Considering the structure of the PGDS-DM which is formalised in the first three years and the rest of the programme is carried out in the form of individual consultations with the mentor and scientific-research activities, data analysis is carried out through an annual report to the University via the Form dr. sc. 09 (III#41).

#### 3.2.3.

Higher education institution ensures efficient mechanisms of success and student passability analysis and initiates adequate activities based on them.

### Integrated undergraduate and graduate university study of Dental Medicine in Croatian

Student study success and passability are analysed and discussed at the level of the Board for Teaching and Students, School Council, and the School management (III#38). If necessary, in co-operation with the student representatives of each year and the student serving as assistant to the dean for student affairs, adequate activities with the goal of improving success and passability of a particular subject are being designed at the level of the Board for Teaching and Students. These activities are suggested to the School Council, i.e., the School management and, if accepted, they are being implemented. Examples of such activities are the inclusion of the best students in teaching as assistants at exercises, and student sections (see Chapters 3.4. and 3.5.). Student sections gather students of all years which perfect their knowledge and skills under the teacher's mentorship. These are: Section for Basic Science, Section for Paediatric and Preventive Dentistry, Section for Restorative Dental Medicine and Endodontics, Section for Orthodontics, Section for Oral Medicine, Section for Periodontology, Section for Surgery and Section for Prosthodontics (III#42). If multiannual analyses of student success and passability show that there are certain trends and possible difficulties in mastering the study programme, amendments to the study programme are made to stop the negative trends. Students of the first year in the academic year 2021/2022 therefore study under the amended study programme, the most important amendment being moving the subject Histology with embryology from the first to the second year of study. That has unburdened the otherwise difficult first year of study and a better student passability is expected.

See Analytic supplement to Self-analysis:

Table 3.4. Progress in the study programme from the first to the second year of study - only for undergraduate and integrated study programmes in the last five academic years

Table 3.5. Completion of the study programme

## Integrated undergraduate and graduate university study of Dental Medicine in English

Carrying out the student survey and passability records which are carried out on the English programme on a regular basis have been very valuable because they have recorded the need for interventions among the teaching staff (III#43, III#44). It has resulted in a series of talks between the School management and certain departments which has finally led to some personnel changes and the schedule increase where necessary (Chemistry). The entire process has demonstrated the care for the wellbeing of the study process and the international programme students.

#### Postgraduate specialist studies

Each exam and lesson with the student are recorded and students are contacted concerning the potential make up classes, if they exist. At the beginning of the study every student is notified on the duration of classes and the time available for writing and defending a thesis. Defences are controlled and the students are notified on the expiration of the study and the rights on further studying.

#### **Doctoral studies**

On the basis of the annual analysis of defended doctorates and the year of enrolling into the doctoral study, Vice dean for Science sends an e-mail one year before the expiration of the deadline for the defence of the dissertation, reminding the candidates of the possible loss of rights to further studying unless they meet their obligations on time.

#### 3.3. Higher education institution enables student-centred teaching.

#### 3.3.1.

Higher education institution encourages different ways of conducting classes in accordance with the anticipated learning outcomes.

## Integrated undergraduate and graduate university study of Dental Medicine in Croatian and English

At the IUGUS-DM, which is carried out in Croatian and in English, classes are conducted in the form of lectures, seminars and exercises. There are between 85 and 90 students at each year of study (20 to 24 students at the study conducted in English), so lectures are carried out in one group for all students, while the seminars are divided into three or four seminar groups. Exercises carried out at the School are divided into laboratory, preclinical, clinical and special clinical exercises. Laboratory and preclinical exercises are carried out in the first three years of study with up to 16 students in one exercise group and one teacher. At higher years clinical and special clinical exercises prevail in which students work with patients and it is considered the most important way of achieving learning outcomes anticipated in the study programme. There are up to 8 students and a teacher in one clinical exercises group, and up to 4 students and a teacher in a group with special clinical exercises. By working in small groups, a personalised approach to the student and optimal acquisition of learning outcomes, especially the ones regarding clinical skills and competences, are achieved. A special form of teaching are practicals outside the School in the duration of 500 hours which are carried out in the last semester of study in dental offices, collaborative offices of the School. These offices can be within health centres, dental clinics, or independent private offices within the network of the Croatian Health Insurance Fund or outside it. During the practicals each student gets their own mentor, a dental practitioner, to work with who applies the principles of mentoring guidance and teaching to introduce the student to everyday functioning of a dental office. That gives the student the opportunity to actively learn through work and to become prepared for entering the labour market immediately after graduation.

#### Postgraduate specialist studies

Each PGSS is aimed at following the profession and learning outcomes are modified based on that. Apart from the possibility of direct implementation of learning outcomes, the student is encouraged to do master's papers which proves the implementation of learning outcomes. Seminar papers are used as additional encouragement for showing learning outcomes.

#### **Doctoral studies**

Learning outcomes at the level of the doctoral education at the School are in accordance with the highest level which demands acquiring generic competences that develop the ability of problem solving, analysis and synthesis, information management skill and the ability to manage team work. In order to provide the environment which enables all that, the School regularly updates the PGDS-DM programme with new courses which try to implement exactly such teaching content and methods. The examples are the newly introduced courses: Methodology and principles of evidence-base dentistry, Scientific-research integrity in dental medicine and Saliva as a diagnostic sample.

#### 3.3.2.

Various teaching methods which encourage interactive and research learning, problem solving, and creative and critical thinking (for example, individual and group projects, collaborative learning, problem teaching, field work and other interactive methods) are being used.

## Integrated undergraduate and graduate university study of Dental Medicine in Croatian and in English

For the purposes of acquiring learning outcomes anticipated by the study programme, various teaching methods are used on the study that are adjusted to the needs of individual subjects, from the classical to innovative such as the flipped classroom (for example, the course Oral Medicine I and II), project-based learning (for example, the course Project), game-based learning (for example, Preclinical Endodontics), problem-based learning (for example, various clinical dental subjects), and inquiry-based learning (for example, the course Project). During the study students also have practical classes in the chemistry and biochemistry laboratory, physics laboratory, anatomy, biology and histology exercise room, preclinical dental exercise rooms, dental clinics, operating rooms, hospital wards (Sisters of Charity Hospital, University Hospital Centre Zagreb, Clinical Hospital Dubrava, University Hospital for Infectious Diseases Dr Fran Mihaljević, School of Public Health "Andrija Štampar"), laboratory for forensic medicine, etc. Regardless of the form of teaching, they are always encouraged to critical thinking and forming and presenting their own opinions and results through classes and extracurricular activities (symposia, congresses, etc.)

As far as modern approaches to teaching content and form provided to students, in the academic years 2018/2019, 2019/2020 and 2020/2021 3 five-day summer schools

In English were held, "Methods in Dental and Orofacial Tissues Research", in co-operation with the School of Medicine University of Zagreb. For 5 days students had the opportunity of attending intense practical workshops where they were introduced to the methods of fundamental scientific research in the orofacial sciences field, especially in the regenerative sciences field. Apart from the teachers from our University, scientists and teachers from the USA, London, Zurich and Singapore, some of them our alumni, arrived to Zagreb in order to hold lectures in Summer schools. All of them are internationally acclaimed scientists. Summer school is free for all participants and 2 ECTS points are awarded upon its successful completion (III#45).

A new elective subject called "Project" was introduced in the academic year 2019/2020 (III#46). The purpose of the subject is to include students in scientific and professional activities carried out at the School with the goal of improving their scientific, professional and organisational skills and competences. The subject encourages interactive and research learning within a larger or smaller group of students under the teacher's mentorship (research-centred teaching). Scientific activities within the subject Project are activities connected with laboratory, clinical or field research which is carried out under the teacher's mentorship. Professional activities within the subject Project are all other activities which are not of scientific character and are carried out under the teacher's mentorship and are connected with the application of theoretical knowledge and practical skills in dentistry, but also in other areas. These activities can include field work, preventive dental activities, educational workshops, organisation and/or help with organising professional gatherings, etc. Students who choose this subject and teacher and accomplish what is expected of them by the end of the academic year in which they took the subject, will get 1 ECTS point for their activities. One student can get 1 ECTS point at most for their activities in this subject in one academic year. The teacher confirms with their signature in the student transcript book that the student has met all their obligations. The subject does not have lectures, exercises, seminars, or exams. The subject Project also has no grades and does not enter the GPA. Teachers in the scientific-teaching title assistant professor or higher once a year express their need for student activities by filling in the form "Form for the application of activities within the subject Project" (III#47). In the application form the teacher states the type of activity, the number of students needed, the year in which the student must be in order to be able to participate in this activity, the description of the activity, the students' duties, the duration of the activity, and the benefits for the student. All properly applied suggestions are considered by the Board for Teaching and Students. The subject is carried out on all years of study. Students who decide on a specific, previously approved activity, contact the teacher who has suggested the activity. Students can sign up for the subject only with the written consent of the teacher on an adequate form "Statement on teacher consent" (III#48). Students hand in the written teacher consent in the Student Office when enrolling in the higher year of study.

#### Postgraduate specialist studies

Each student is included in interactive teaching which is extremely individualised and interactive at the PGSS because of small groups in which it is carried out. Seminars and exercises encourage the student to make practical works in their dental offices and to demonstrate their knowledge and acquired skills. There are also exercises of application of the latest technologies which each student tests and then has discussions on their practical application.

#### **Doctoral studies**

PGDS structure is aimed at research work, scientific publications and presenting research results at scientific gatherings. That implies individual work with the mentor, but also teamwork in research groups. Critical thinking is a precondition and stimulation for the scientific work, and creativity is developed through the realisation of planned research and the interpretation of results compared to those of fellow researchers.

# **3.3.3.**Teaching forms and methods are being continually evaluated and modified.

### Integrated undergraduate and graduate university study of Dental Medicine in Croatian

Teaching forms are being continually evaluated and modified. Evaluation is done through the Online survey for student teaching assessment at mandatory and elective subjects which the students fill in at the end of each semester (III#49) and it is organised by the Vice dean for Quality Assurance. The survey contains questions on teaching performance in accordance with the subject implementation plan, teaching performance satisfaction, teaching materials satisfaction and the conformity between teaching and learning outcomes on the subject, and satisfaction with individual subject teachers. Students can also express their criticisms, suggestions and comments related with the teaching of an individual subject. Cyclic surveys are also being carried out every 5 years by the University of Zagreb. Survey results are delivered to individual teachers, subject leaders, department/chair heads, Vice Dean for Teaching and Students and the Dean at the end of the academic year. Survey results are analysed and suggestions for teaching adjustments and improvements for a subject are made according to them.

## Integrated undergraduate and graduate university study of Dental Medicine in English

Surveys are carried out at the study programme in English as well (III#43, III#44). The number of students in that programme is small (the overall number is currently less than 80), which enables online Zoom co-ordination of the

management with teachers and students when introducing new teaching forms (for example, when transferring to online teaching during the pandemic).

#### Postgraduate specialist studies

Through quality testing and assurance which is done through online surveys (III#50) made by the Board of Quality Assurance, the development and improvement of teaching is discussed with the Board for Postgraduate Specialist Studies. New specialist studies PGSS-DMT, PGSS-DP, PGSS-ERDM and PGSS-FA were established due to the improvement of teaching. All studies are new and represent the combined effort for the improvement of teaching and teaching methods, as well as the compliance with the trends in the profession.

#### **Doctoral studies**

Teaching forms and methods at the PGDS-DM are being continually evaluated through an anonymous online survey (III#51) in which students assess all aspects of the doctoral study, including the teaching forms and their satisfaction with its implementation. Based on the results of the survey analyses are being made and the changes in the teaching form are being suggested.

#### 3.3.4.

Teaching methods are adjusted to the diverse student population (non-traditional student population, part-time students, mature students, underrepresented\* and vulnerable groups\*, etc.).

There are no students who would fall under the category of non-traditional student population at the School, part-time students, mature students, and students from underrepresented and vulnerable groups. Therefore, there is no adjustment of teaching methods to these students. To the students enrolled in one of the postgraduate studies and who are often employed, the teaching schedule is delivered a month before the start of classes at the latest so that they could adjust their business and private obligations and attend classes.

#### 3.3.5.

Higher education institution ensures using advanced technologies with the goal of modernising teaching.

The School ensures using advanced technologies with the goal of modernising teaching. During 2019 and 2020 the School has updated the complete computer network infrastructure which has turned out to be extremely useful and important for carrying out online teaching when lessons in person have been impossible due to the Covid-19 pandemic and the earthquake in 2020. New computers for lecture rooms, exercise rooms, computer classrooms, the library, for students and teachers are purchased every year, replacing the ones older than 5 years. In the last 5 years smart boards were purchased for two preclinical exercise rooms, and all lecture rooms and seminar rooms are equipped with computers with projectors and a network and multimedia equipment for distance teaching and videoconferences. Except for the hardware, the School also regularly renews licences for computer programmes used in teaching and scientific activities of the School such as Statistica, Microsoft Windows 10, Microsoft Office, etc. A platform for contemporary teaching in person and distance teaching on all studies at the School has been established through a modern and functional computer information infrastructure. Teachers reqularly use the possibility of perfecting their computer competences in co-operation with the University Computing Centre University of Zagreb (hereinafter SRCE).

Specific equipment, appliances and materials are necessary for the dental preclinical and clinical education of students. A lot of attention is being paid and substantial financial resources are being used for enabling contemporary and working equipment, and the latest technologies and materials for students. There are more than 70 dental units with the related equipment at the School which are used daily in clinical teaching through the students' work with patients. There are over 30 preclinical dental units in preclinical exercise rooms which are used in teaching at the integrated study and at postgraduate studies. In the last three years a 3D scanner, a 3D printer with the related milling machine, an endodontic microscope, dental lasers, and numerous other pieces of equipment necessary for the contemporary clinical education of students of dental medicine have been purchased for the purpose of modernising the teaching process.

The School's scientific-research laboratory where the interested students can do scientific research for their theses and papers for the Rector's Award was in the last five years equipped with very valuable equipment such as: Fourier-transform infrared spectrometer Nicolet iS50 FTIR, UV-vis spectrometer Genesys 180, Radiometer Bluephase Powermeter, pH meter/ISE meter Orion Dual Star, Olympus zoom microscope, ISOMET 2000 Precision Cutting Machine, etc.

The School takes special care of the availability of contemporary teaching literature to students. Teachers are encouraged to publish educational texts and university textbooks and manuals for subjects which they teach. An educational text is text intended for students concerning the subject which the teacher teaches at the integrated undergraduate and graduate university study or at postgraduate specialist studies and doctoral study. The topic of the educational text must be closely connected with the topics anticipated by the subject plan. The educational text has to be based on the goals of the subject and the anticipated learning outcomes at the subject level and the study programme level. It must help the students in acquiring learning outcomes and outgoing competences. There is a special instruction for making educational texts (III#52). Educational texts are evaluated by a three-member committee which proposes to the Board for Teaching and Students, i.e., to the School Council that a certain educational text be approved for use in teaching a certain subject. Teachers who want to publish a university textbook or manual have to prepare their materials according to the Instruction for technical design and layout suggested for the university teaching literature in the series *Manualia Universitatis studiorum Zagrabiensis* (**III#53, III#54)**.

Literature for mandatory and elective courses is being regularly analysed considering its age, type, and publishing language (III#55), and further activities concerning the modernisation of the available literature are planned according to the results of the analysis.

See Analytic supplement to Self-analysis Table 4.8. Space and Table 4.9 Capital equipment

#### 3.3.6.

Accessible and dedicated teachers contribute to motivating students and their engagement.

## Integrated undergraduate and graduate university study of Dental Medicine in Croatian and English

Due to a relatively small number of students and a favourable student-teacher ratio (1:5), an individualised and personalised approach to students is fostered at the School. In the implementation plan of each subject there is contact information (e-mail address) for each teacher on the subject so that the students could contact them if necessary. Teachers also organise student consultations. Except for teachers, the Vice Dean for Teaching and Students is always available to students through meetings with students from different years where they discuss teaching-related topics, but also extracurricular activities. Personal approach and advice are especially used in communication with the students from abroad. An example of one such communication (III#56)

shows how much the vice dean and course leader is interested in students and how much they are invested in their individual challenges. Peer support to students is provided by older students and student assistants who master the study successfully and are highly motivated.

Teachers who want to include students in their scientific and professional activities apply the activities each year within the subject Project (III#57). Many teachers mentor students during the creation of papers for the Rector's Award, and the School's students have received multiple Rector's Awards in various categories in the last five years (III#58).

#### Postgraduate specialist studies

Each student has individualised classes in the form of seminars and exercises where they work independently, and the teacher discusses the presented work with other participants. Each student also has to make a master's specialist thesis in the duration of up to 2 years (3 in PGSS-DM) and during the entire time has the possibility of choosing a mentor and having consultations with them.

#### **Doctoral studies**

The anonymous survey analysis and the results of university surveys Form dr. sc.04. show that the teachers-mentors are accessible and stimulating (III#59, III#60). The number of defended doctorates in 2021, which amounted to 23, supports that and is the result of the joint effort of the candidate and their mentor.

**3.3.7.** Higher education institution encourages student independence and responsibility.

The School develops and encourages the independence and responsibility of all students in curricular and extracurricular activities. Special attention is being paid to student independence and responsibility in clinical work with patients, where students not only have to show adequate theoretical knowledge and practical skills, but also an adequate level of independence and responsibility in dealing with patients from the moment they walk in the office until they leave. In their work students have to show responsibility towards the patient, teachers and other dental staff, colleagues, but also towards themselves. The level of student responsibility in the clinical work is developed gradually, and there are several levels of independence: A - has done the procedure completely independently; B – has done the procedure independently, mentor has helped with advice; C – has done the procedure with a little help from the mentor (the mentor has done a small part of the procedure); D - has done the procedure with a significant help from the mentor (the mentor has done a larger part of the procedure) or E – has observed the procedure/assisted in the procedure.

Student independence and responsibility in extracurricular activities is manifested through the leading of the Dental Students' Association, the publishing of the student magazine Sonda (Probe), the organisation of various student events such as the Virtual World Congress of Dental Students, the International Symposium of Dental Students, the European Visiting Programme, the Students' Summer Camp, Dentakl – a student talent show, activities in the European Dental Students' Association (EDSA) in which the School's students have served as presidents, vice presidents or secretaries in several terms. Also, students have been awarded the Rector's Award more than 30 times in the last five years (III#58).

#### 3.4. Higher education institution ensures adequate student support.

#### 3.4.1.

Higher education institution enables giving advice on studying and career possibilities to students (for example, tutors, mentors, and other advisors as help to students in studying and advancement).

Advising students on studying is done from the very first day of the study at the introductory lecture for the students of the first year with the introductions by the dean and vice deans, teachers, employees of the Secretariat and the Students' Office, and a group of older students in charge of helping the students of the first year. Help in learning and advancement is continually given to students by older students who act as demonstrators, teachers on certain subjects who are available to students for virtual consultations or consultations in person, employees of the Students' Office, and the Vice Dean for Teaching and Students. There is also the student Ombudsman. Students also have their mentors at the School and outside it during the practicals. The School's mentors to students during the practicals are doctors of dental medicine in associate or scientific-teaching titles employed at the School. Mentors for students on practicals outside the School are doctors of dental medicine with at least 5 years of work in dental medicine who are employed in a dental office with an agreement on collaboration with the School for the current academic year on the implementation of practicals. The list of mentors for the students' practicals is determined for each academic year at the session of the School Council. Students are assigned to mentors by the competent School office. It is the mentor's responsibility to monitor and evaluate the work of students at the practicals.

Advising students on career possibilities is implemented on several levels. In their first year, within the subject Introduction to Dental Medicine, students attend the lecture "What to do after studies?" where they are introduced to employment possibilities and the continuation of education after graduation. Also, in their fifth year students have the possibility of choosing the subject "Career Development in Dental Medicine" which points to career possibilities. A meeting with potential employers is organised for the students of the final, sixth year during the 11th semester (III#61). The School invites representatives from various institutions which employ doctors of dental medicine such as the directors of health centres and other public institutions which provide primary dental health care, representatives of large dental clinics and owners of smaller dental offices, and representatives of companies dealing with the sale of dental equipment and materials which employ doctors of dental medicine to the meeting.

With the purpose of developing and improving the IUGUS-DM, with special emphasis on planning student careers after their graduation, and their quicker and easier inclusion in the labour market, a Study on Teaching and Nonteaching Aspects of Studying has been made (III#62).

#### 3.4.2.

Higher education institution has established functional procedures for professional quidance of students, psychological counselling, legal counselling, support to students with disabilities, support for inclusion in programmes of incoming and outgoing mobility, the library department and the students' office at the University or School level and students have been informed about it.

Students are informed about the possibilities of professional guidance, psychological and legal counselling, and the possibilities of inclusion in programmes of outgoing mobility in the introductory lecture which is organised at the beginning of each academic year. They are informed about it by the dean, department vice deans, Secretary General of the School, and the head of the Students' Office. Head of the library introduces the students to the work of the library, and the employee of the SRCE to the information infrastructure and the services intended for students which can be used at the level of the School, i.e., the University.

Students regularly use the possibilities of different forms of support offered by the School during the study. Problems affecting a larger number of students are solved with the mediation of student representatives on individual years who directly contact the Vice Dean for Teaching and Students or the School's management. Students with individual problems or needs first contact the Students' Office. If the problem cannot be solved at that level, the student is referred to the Vice dean for Teaching and Students.

#### 3.4.3.

Student support is adapted to the diverse student population (part-time students, mature students, students from abroad, students from underrepresented and vulnerable groups, students with certain difficulties in mastering the teaching material and the study, etc.).

Student support is adapted to the student population at the School, and the School has no part-time students, mature students or students from underrepresented and vulnerable groups. The Vice dean for International Co-operation and local students who help with mastering the studies are available to foreign students. Students with difficulties in mastering the teaching material and the study are helped by student assistants, subject teachers, employees of the Students' Office and the Vice dean for Teaching and Students.

#### 3.4.4.

Higher education institution employs an appropriate number of qualified and dedicated professional, administrative and technical personnel.

Professional, administrative and technical personnel of the School are qualified for carrying out entrusted assignments in a dedicated and efficient way. Unfortunately, due to limitations in employment of all employees imposed by the Ministry of Science and Education, the School has a problem with the number of administrative personnel (see Chapter 4.2.1.). Considering the small number of administrative personnel, it is necessary that one person, along with their duties, knows how to perform duties in another position, which can sometimes be an advantage, but also a liability.

## 3.5. Higher education institution ensures support for students from vulnerable and underrepresented groups.

#### 3.5.1.

Higher education institution is monitoring various needs of students from vulnerable and underrepresented groups.

There are no students from vulnerable and underrepresented groups at the School, so their needs cannot be monitored.

#### 3.5.2.

Teaching process is adapted to individual needs of students from vulnerable and underrepresented groups.

There are no students from vulnerable and underrepresented groups at the School, so there is no need for individual modifications of the teaching process.

#### 3.5.3.

Higher education institution is investing resources in the support of students from vulnerable and underrepresented groups.

There are no students from vulnerable and underrepresented groups at the School, so no resources are being invested in their support.

#### 3.6. Higher education institution enables students to gain international experience.

#### 3.6.1.

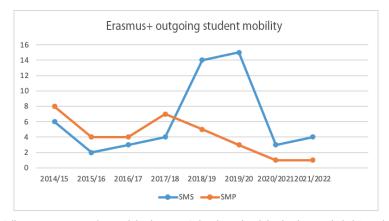
Students are informed on the possibility of attending part of their studies abroad.

The Erasmus+ Programme (2014-2020) ensures gaining international experience to students, of which students are informed in 4 ways: 1. through their communication platforms with representatives of the student year sending an e-mail to everyone, 2. through student representatives in the School Council in the form of an item on the agenda, 3. by placing a notification on the School's website (III#63), and 4. by organising an "Erasmus+ Info Day: Erasmusiraj se!" (III#64), where students can ask questions and learn about experiences from Erasmus+ scholarships.

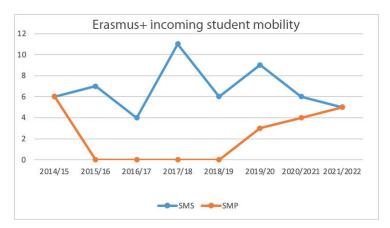
The School has signed Erasmus+ agreements (2022-2028) with nine foreign partner schools (Muenchen, Greifswald, Lisbon, Viseu, Sassari (+ for PhD), Brescia, Košice, Poznan and Madrid) (III#65). Along with the Student Mobility for Studies (SMS) during the entire semester, our students use Erasmus+ mobility in the form of practicals as outgoing mobility (gaining experience from foreign dental offices). The School also often hosts incoming Erasmus+ Traineeship (SMP) students along with the incoming SMS students.

Representation of achieved outgoing (Figure 2) and incoming (Figure 3) student mobility within the study stay (SMS, semester) or practicals (SMP, Traineeship, min. 2 months). During the Covid-19 pandemic there have been many withdrawals from mobility which led to the decline in the number of approved financing of Erasmus+ scholarships, under the decision of the School. For example, 18 students have applied for the SMS mobility in the academic year 2020/2021, financing of 16 scholarships (mobilities) has been approved,

but due to the Covid-19 pandemic there have been 13 withdrawals and only 3 mobilities have been implemented. In the following academic year 13 mobilities will be approved, however financing will be approved only for 2, meaning that 4 mobilities will be implemented (2 financed and 2 zero-grant). A drastic decline in the number of financed students' mobilities can potentially jeopardise the success of the project. Achieved student mobilities implemented through the School since the academic year 2014/2015 until today can be found in the cumulative document (III#66).



**Figure 2.** Collective outgoing student mobility by years. Only achieved mobility has been included. Period of Covid-19 is marked in red on the axis x.



**Figure 3.** Collective incoming student mobility by years. Only achieved mobility has been included. Period of Covid-19 is marked in red on the axis x. Along with Erasmus+ incoming SMS students, 2 CEEPUS scholarships for the study stay have also been included (one in the academic year 2014/2015 and one in 2016/2017)

During the time period included in the re-accreditation, the School has had signed Erasmus+ agreements with the universities Ankara, Hacettepe, L'Aquila, Foggia and Valencia (III#67). However, at the explicit request of the University of Zagreb for the reduction of the number of Erasmus+ agreements (III#68), agreements with the aforementioned universities have not been renewed in the new Erasmus+ period due to the weaker interest of our students. The School's Decision on Quotas defines that the maximum number of agreements that the School can sign by 2027 is 11 and that 60% of that number, i.e. 7 agreements, are signed now in the first year (III#69). Finally, the School has signed as many as 9 agreements for the first year of the new Erasmus+ period which are being implemented despite restrictive circumstances imposed by the University.

Along with Erasmus+ agreements, the School has direct bilateral inter-institutional agreements which regulate the possibilities of mutual student and

teacher mobility (Tufts University School of Dental Medicine (III#70), Brescia University (III#71), Ljubljana University (III#72)). The School also enables the achievement of mobility within the DAAD scholarship (III#73, III#74).

Other student international activity is manifested through the participation of the School's students in international student associations. In the European students' umbrella organisation, "European Dental Student Association" (EDSA), the School's students have leading roles and even served as presidents in the academic years 2015/2016, 2016/2017 and 2019/2020 (III#75). Our student is currently the General Secretary of EDSA (III#76). All international activities of the School are published on the website of International Co-operation (III#77).

See Analytic supplement to Self-analysis Table 3.6. Mobility of students (total) in the last five academic years

#### 3.6.2.

Higher education institution provides support to students during the application and the implementation of the exchange programme.

The School considers Erasmus+ SMS mobility to be of strategic importance and provides strong support to students about to leave for mobility. Studies of dental medicine in Europe are all very different, depending on nationally recognised specialties, i.e., they reflect the health profession of a certain country. That is why this programme demands our careful consideration and planning when preparing the Learning Agreement of each student, as well as the flexibility by the School, student and the partner institution.

Three employees of the School are continually carrying out activities related with student mobility: the Vice dean for International Co-operation who is also an Erasmus co-ordinator, Professor Danijela Marović, PhD, as ECTS co-ordinator and the administrative employee Mrs Petra Lazić. The vice dean takes care of the implementation of bilateral agreements and is responsible for decisions concerning all elements of mobility. An ECTS co-ordinator co-ordinates the Learning Agreements of incoming and outgoing students and places incoming students into corresponding groups. They all communicate with each other, towards the students, but also towards foreign partners and the University Office for International Co-Operation. The administrator prepares the documentation, ensures processes and keeps the archives. ECTS co-ordinator is in contact with the student mostly during the preparation of the Learning Agreement and during the entire implementation of the mobility and consults the vice dean if agreement interventions are necessary. If the student encounters a problem, the vice dean handles the problems where it is necessary to contact the leadership of the partner institution.

The team is joined by fellow teachers for working in certain committees, for example, for ranking students who applied for the mobility. Competitions are implemented in front of an expert committee (three teachers) and the registrar (administrative personnel). Candidate ranking procedure for the outgoing SMS mobility is objective and transparent, and the description of the procedure and the method of assessment is publicly published on our School's website (III#78).

#### 3.6.3.

Higher education institution ensures the recognition of ECTS points acquired at some other higher education institution.

The School ensures the recognition of ECTS points acquired at another higher education institution by recognising the ones agreed upon in the Learning Agreement. If the student has acquired additional points, they are also recognised. The decision on the recognition is under the authority of the management and not of individual teachers, so a certain subject teacher cannot question the process, for example by claiming that the subject is not good enough at the foreign school. The decision on recognition is co-signed by the competent vice dean and the dean (III#79, III#80).

#### 3.6.4.

Higher education institution collects data on student satisfaction with the quality of the support by the higher education institution in practical questions of student mobility.

Upon their return from mobility, students prepare presentations on their stay and in that way convey information on the host and experience-based advice to competent personnel and interested students. There is also a system of collecting data on student satisfaction with the quality of the School's support via survey. The survey enables each student to make a review on their satisfaction with the support in 3 key phases of mobility: during the application process, during their stay abroad and upon their return, during the recognition of the foreign classes. The survey is anonymous, but the student can sign their name if they want to. Two thirds of the overall number of Erasmus students have taken part in the survey (N=32). The results show a very high level of satisfaction with the support given to students by the School (III#81). The survey shows that as much as 87-97% of students have received adequate or above-average support, and only between 3 and 12.5% regarded the support as inadequate. Flexibility and logistic student support, as well as the high priority of the School towards this programme have turned out to be the cause for such positive students' reaction (III#82).

## **3.6.5.**Students acquire competences

competences necessary for the work in the international environment. The School's students acquire competences necessary for the work in the international environment through the implementation of the project (October 2018 - October 2021) financed by the Structural Funds of the European Union, within the Call UP.03.1.1.02, Internationalisation of Higher Education". The project is called "The Study of Dental Medicine in English". The main goals of the project were to enable attending classes in English to all students enrolled in the programme in Croatian, as well as the modernisation of the teaching process by including digital technologies (through the acquisition of a 3D printer). That will provide all students with an opportunity to achieve higher competitiveness on the international labour market after graduation (III#83, III#84). An important part of the project was intended for acquiring internationally relevant competences for the students interested in science. Through 3 oneweek summer schools in English "Methods in Dental and Orofacial Research - Summer School" (held in 2019, 2020 and 2021) our students have gained the experience of fundamental scientific research through the internationally acclaimed lecturers from the country and abroad (see Chapter 3.3.2) (III#45).

## 3.7. Higher education institution ensures favourable studying conditions to foreign students.

#### 3.7.1.

Information on the possibilities of enrolment and studying are available to foreign students in a foreign language.

IUGUS-DM has been fully available in English since 2017. Currently there are 79 full-time students at the study in English and several Erasmus students who are spending a semester at the School. Information on the detailed overview of the programme are available on the School's website (III#85), as well as the information on enrolment requirements (III#86).

#### 3.7.2.

Higher education institution gives support to foreign students during the application and studying at the national higher education institution.

Along with clear instructions on the School's website, employees in charge of communication regarding the study in English (competent vice dean and administrative employee) communicate quickly and efficiently via e-mail and help foreign students cope with regulations, especially regarding the recognition of secondary school certificates with the ASHE (III#87).

Detailed plans of the study programme are available to students who come here for a short period of time, for example through Erasmus or other mobility platforms. ECTS co-ordinator and the competent vice dean make sure that they are given an adequate schedule and that they are placed in adequate student groups.

Interest and implementation are significant, as seen from the Figure 2 (see Chapter 3.6.1.), and the School keeps detailed records on achieved incoming mobilities (III#66).

#### 3.7.3.

Higher education institution has feedback on the satisfaction and needs of foreign students.

By carrying out surveys among students of the programme in English the School gets information which form the basis for the improvement of the quality of the study programme (see Chapter 3.2.3).

#### 3.7.4.

Foreign students have the option of attending classes in a foreign language (in English). Foreign students have the option of attending classes in a foreign language from the first to the fifth year, and from the following academic year from the first to the sixth year of the study (III#88).

#### 3.7.5.

Learning Croatian for foreign students is provided at the level of the constituent or the university.

The School provides learning Croatian for one semester during the 1st year and one semester during the 2nd year of the study on the subject "English / Croatian", whose goal is to teach students the basics of Croatian and the basics of dental terminology in English (III#89, III#90).

## 3.8. Higher education institution ensures objective and consistent evaluation and assessment of student achievements

#### 3.8.1.

Criteria and methods of evaluation and assessment are clear and issued before the start of lessons of individual subjects.

Implementation plans for each subject are made before the start of the academic year (III#29, III#36). The implementation plan is published at the subject's website with the beginning of the academic year. Apart from the learning outcomes, among other things, information on student's duties on the subject, ways of monitoring student's work during classes, ways of taking exams, including the criteria and methods of evaluation and assessment, and the dates of exams for the entire year are available within the implementation plan of the subject.

For the students of the last year of the study who are preparing their thesis, the procedure for the choice and application of the topic is elaborated in great detail and instructions for writing and defending the thesis are made (III#91, III#92, III#93).

#### 3.8.2.

Criteria and methods of evaluation and assessment are co-ordinated with the used teaching methods.

Criteria and methods of evaluation and assessment are co-ordinated with the used teaching methods and can differ according to whether the subject is basic, preclinical, or clinical. In that sense, special attention is paid to the evaluation and assessment of learning outcomes from the category of skills on preclinical and clinical subjects where there are practical exams, along with exams.

Although criteria and methods of evaluation and assessment are being continually perfected, there is still much room for their balancing and standardisation among various subjects, as well as among various teachers on the same subject.

#### 3.8.3.

Higher education institution provides support in the development of skills regarding the methods of testing and examination to everyone who evaluates students.

The School organises workshops for raising the level of teaching competences for the teaching staff, including the development of skills regarding the methods of testing and examining students. Such workshops were organised in 2018 and 2019 in collaboration with the British Council, and on two occasions in 2021 in collaboration with Academia Master Class, Zagreb. Teachers also have the opportunity of participating in education courses organised by the University Computing Centre (SRCE) regarding the methods of testing and examining the students in a virtual environment.

In order to balance the methods of testing and examining clinical skills at the level of teachers on a certain subject, students use a so-called Kontrolnik which states minimal skills that need to be acquired by the student for clinical subjects, and which the teacher confirms with their signature (III#30 to III#35). In collaboration with the School of Medicine University of Split, Faculty of Dental Medicine University of Rijeka and the Faculty of Dental Medicine and Health Josip Juraj Strossmayer University of Osijek, a booklet of minimal clinical skills was made. The booklet contains the list of minimal clinical skills, the minimal number of procedures that the student must perform and the level of independence in clinical work expected of the student for each procedure (III#94). The booklet also represents a form of support to teachers in the development of skills regarding the testing and examining of the students' clinical skills.

## **3.8.4.**Higher education institution ensures objectivity and reliability

of assessment.

Student feedback on the objectivity and consistent implementation of evaluation procedures is collected and analysed from the surveys on evaluation of the study as a whole (III#95). The Board for Teaching and Students suggests methods for increasing the level of objectivity and assessment reliability in accordance with the collected data.

According to the Study Regulations (III#21, III#22) the teacher must inform the student of the result of the oral examination immediately after the exam and before entering the grade in the student transcript book. The results of the written examination must be published no later than five working days after the exam on the official website, notice board or in some other adequate way, in compliance with the GDPR. The student may appeal the grade, except in the case of an exam before the committee. The student who is not satisfied with the grade can submit a request for repeating the exam before the committee within 24 hours of finding out the grade. The request is submitted to the dean. If they find the request timely and reasoned, the dean appoints a president and two members of the committee before which the exam will be repeated. The Teaching Committee decides by a majority of votes. The decision of the Teaching Committee is final. Taking the exam for a fourth and eighth time must take place in front of a committee which will carry out additional review and assessment of all parts of the exam.

#### 3.8.5.

If possible, the higher education institution carries out the evaluation of the assessment.

The School is not carrying out institutionalised external assessment evaluation at study level for now.

#### 3.8.6.

Evaluation procedures take into consideration special circumstances of studying for certain groups of students (adjustment of examination procedures, for example for students with disabilities), at the same time enabling achieving the anticipated learning outcomes.

There are no students who would require special studying circumstances at the School, so there is no need for the modification of the evaluation procedures.

#### 3.8.7.

Students receive feedback on evaluation results and, if necessary, advice on the learning process based on them. According to the Study Regulations (III#21, III#22), the student receives feedback on evaluation results immediately with oral examinations or within five days if the exam was a written examination. There is an option of having consultations with the subject teacher for students who are having problems with passing the exam in order to pass the exam as quickly as possible. Evaluation of the study programmes by graduated students shows that the students are very satisfied with the received feedback.

## 3.9. Higher education institution issues a diploma and a diploma supplement in accordance with relevant regulations

#### 3.9.1.

Upon the completion of the study students are issued relevant documents (a diploma and a diploma supplement).

## Integrated undergraduate and graduate university study of Dental Medicine in Croatian and English

Upon the completion of the IUGUS-DM, students are issued a diploma in Croatian and in English and a diploma supplement, also in Croatian and in English. Students can ask for a certificate on the completion of the study in the Students' Office immediately after the completion of the study, and the diploma is awarded at a public graduation ceremony which is held once a year.

#### Postgraduate specialist studies

For PGSSs a diploma and a diploma supplement in the form of a certificate on a defended master's thesis are issued. After defending the thesis, the master's student is issued a certificate which has the same value as the diploma which is awarded by the dean at a graduation ceremony. Certificates and diplomas are issued in Croatian, and upon request also in English (III#96).

#### **Doctoral studies**

Students of the PGDS-DM can ask for a certificate on the successful defence of a dissertation immediately after the defence of the dissertation in the Office for Postgraduate Studies, and the diploma is awarded at a public graduation ceremony at the University which is held once or twice a year.

#### 3.9.2.

Diploma and a diploma supplement are issued in accordance with the relevant regulations.

## Integrated undergraduate and graduate university study of Dental Medicine in Croatian and English

Diploma and a diploma supplement are made according to the template developed by the European Commission, the Council of Europe and the UNESCO-CEPES. The purpose of the diploma supplement is to give a satisfactory quantity of independent data for facilitating international transparency and a fair academic and professional recognition of educational qualifications. The diploma supplement contains the description of the nature, level, context, content, and status of the study that the person with the original certificate of the achieved qualification has attended and successfully completed. Diploma and a diploma supplement are issued according to the Regulation on the Content of Diplomas and Diploma Supplements (Consolidated Text, Official Gazette 77/08 and 149/11) (III#97) and according to the Study Regulations of the School of Dental Medicine University of Zagreb (III#21, III#22).

#### Postgraduate specialist studies

Diploma and a diploma supplement are issued, like on IUGUS-DM, according to the *Regulation on the Contents of Diplomas and Diploma Supplements* (Consolidated Text, Official Gazette 77/08 and 149/11) (III#97) and according to the Regulations on the Postgraduate Specialist Study of the School of Dental Medicine University of Zagreb (III#12).

#### **Doctoral studies**

Diploma of a doctor of science is issued by the University in accordance with the Regulations on Doctoral Studies of the University of Zagreb (Class: 641-01/16-02/12 Reg. No.: 380-020/173-16-7) (III#9).

#### 3.9.3.

Upon the completion of the study, higher education institution issues a diploma supplement in Croatian and in English, free of charge.

## Integrated undergraduate and graduate university study of Dental Medicine in Croatian and in English

Upon the completion of the study, a diploma supplement is issued in Croatian and in English together with the diploma. The diploma supplement is not charged, but the print of the diploma and the graduation ceremony is, which is regulated by the Decision on the Amount of Fees for the Procedure Costs and Issuing of Documents and Teaching Aids (III#98).

#### Postgraduate specialist studies

Diploma supplement and the certificate are issued in Croatian free of charge. Print of the diploma and the graduation ceremony are charged as for the integrated study according to the Decision on the Amount of Fees for the Procedure Costs and Issuing of Documents and Teaching Aids (III#98, III#99).

#### **Doctoral studies**

After the defence of the dissertation the doctoral candidate can ask for a diploma supplement in Croatian and/or English. The diploma supplement is charged according to the Decision on the Amount of Fees for the Procedure Costs and Issuing of Documents and Teaching Aids (III#98).

#### 3.10. Higher education institution takes care of student employability after graduation

#### 3.10.1.

Higher education institution analyses the employability of graduated students.

The School continually monitors and analyses the employability of graduated students using data from the Croatian Employment Service, ASHE (III#100), but also its own research (III#101). For the purpose of the employability analysis of graduated students carried out by the School, the following data are being collected, among others: status of employment, type of the institution of employment, job position, the length of the period of time until the first employment in the field, satisfaction with the work conditions, working time, salary, perspective, possibility of personal improvement, etc.

#### 3.10.2.

Enrolment quotas are coordinated with the social needs and the needs of the labour market, as well as with the resources of the higher education institution. The results of the employability analysis are used for planning enrolment quotas. The current enrolment quota is 85 students from Croatia and the EU member countries plus 5 more students from the quota of foreign students (non-EU countries). That enrolment quota has been in force since 2010 and corresponds to social needs, the needs of the labour market, but also to the personnel, i.e., space resources of the School. Apart from the School of Dental Medicine University of Zagreb, in the Republic of Croatia the doctors of dental medicine are educated with the financial support of the Ministry of Science and Education at the Faculty of Dental Medicine University of Rijeka (25+5 students) and the School of Medicine University of Split (30 students). The Faculty of Dental Medicine and Health Josip Juraj Strossmayer University of Osijek has a quota of 30+5 students, but the study does not have financial support by the Ministry of Science and Education so students have to pay tuition fees. That is more than enough for meeting the social needs and the needs of the labour market. The teacher-student ratio of 1:5 speaks in favour of adequate personnel resources of the School. Space capacities are limited, but such that the quality of classes for the afore-mentioned number of students is satisfying. According to the employability analysis carried out by the School, graduated students on average wait for less than 3 months for their first employment in the field (III#100, III#101).

See Analytic supplement to Self-analysis Table 3.7. Employment of graduates / alumni in the last 3 calendar years

#### 3.10.3.

Higher education institution notifies future students on the possibilities of continuing education or employment after the completion of the study.

The School notifies future students on the possibilities of continuing education or employment after the completion of the study in different ways. Promotional materials in the form of videos and leaflets are made for that purpose and distributed at the University of Zagreb Fair. The School regularly participates at the University Fair where students and teachers present the School, its studies and employability possibilities to future students in person. The School and its teachers have received a Recognition for Communicativeness, Friendliness and Accessibility from the Rector at the University Fair 2014/2015 and 2015/2016, and in 2017/2018 a teacher from the School has received a recognition from the Rector for the lecture that they had delivered to future students at the Fair. The School also communicates with future students via social network sites. A special closing lecture is organised for the students of the sixth year where the Vice dean for Science and Doctoral Study introduces them to the possibilities of professional training and enrolling in the doctoral study at the School, and the Vice dean for Postgraduate Specialist Studies with the possibilities of continuing education through one of the PGSSs or programmes of continuing education organised by the School. Also, information and competitions on the possibilities of continuing education are published on the School's website. In collaboration with the Croatian Dental Chamber (CDC), graduated students who are members of the CDC in December receive a booklet (via mail and in electronic form) with the list of continuing education programmes organised by the School in the following year (III#102).

#### 3.10.4.

Higher education institution provides support to students regarding the planning of their future career.

Student support regarding the planning of their future career is provided continually and on several levels throughout the study. Students have the opportunity to attend the lecture "What to do after studies" at their first year within the subject Introduction to Dental Medicine. There is an entire chapter on that topic in their university textbook which they use for preparing the exam. There is a subject "Career Development in Dentistry" on the fifth year of the study where the student learn how to write a CV and a motivational letter, how to prepare for an interview with a potential employer, how to face fear of public speaking and how to overcome it, and are introduced to various possibilities of employment after graduation (III#103). For the students of the sixth year of the study a meeting with potential employers is organised during the 11th semester. The School invites representatives of different institutions which employ doctors of dental medicine such as the heads of health centres and other public institutions which provide primary dental care, representatives of large dental polyclinics and owners of smaller dental offices, and representatives of companies which sell dental equipment and material which employ doctors of dental medicine. Such meetings are an excellent opportunity for the students to get information on employment possibilities and methods directly from potential employers, and students find them extremely useful (III#104).

## **3.10.5.** Higher education

institution maintains contact with former students.

In 2013 the School founded its own Alumni association, which is very active. At least 9 meetings of the alumni generations have been organised since the last re-accreditation. Apart from gathering former students, the Alumni association takes care of maintaining contact with former students who have continued their career abroad and documents the abundance of continuous activities of maintaining contact with former students (III#105) and publishes them in the "Newsletter of the School of Dental Medicine" (III#106). That activity has also been recognised at the level of the University of Zagreb, so our teachers are elected in governing bodies of the Alumni association of the University of Zagreb: Professor Ivan Alajbeg, PhD, and Professor Hrvoje Brkić, PhD (III#107).

## IV. TEACHING AND INSTITUTIONAL CAPACITIES (ESG 1.5., ESG 1.6.)

#### 4.1. Higher education institution ensures adequate teaching capacities

#### 4.1.1.

The number of teachers and their qualifications are adequate for the implementation of the study programme and for gaining the anticipated learning outcomes, as well as for carrying out scientific activity.

The School offers one IUGUS-DM in Croatian and in English, two PGSSs in Croatian and one PGDS in Croatian and in English. The number of the School's teachers and their qualifications are suitable for the implementation of all mentioned study programmes and for acquiring anticipated learning outcomes, as well as for carrying out scientific activity.

In the academic year 2020/2021 a total of 166 teachers and teaching associates have participated in scientific and teaching activities at the School: 31 full professors in permanent status, 29 full professors (first choice), 42 associate professors, 37 assistant professors, 10 postdoctoral researchers, 16 assistants and 1 senior lecturer (Physical Education lessons). All teachers have a choice of their respective scientific fields and sectors and are scientifically active in their fields which is demonstrated by their published scientific papers, participation in domestic and foreign scientific gatherings and projects, and other scientific activities described in Chapter V. Scientific Activity. All that proves that the teachers possess the necessary competences and knowledge for a successful implementation of classes and scientific activity.

In the last five years, 18 teachers have left the School, and 14 teachers and 31 postdoctoral researchers and assistants have been employed. That shows care of the renewal of staff, systematic planning and implementation of the staff policy of the School which considers valuable and motivated teachers one of the most important elements in the process of educating a contemporary and internationally competitive doctor of dental medicine.

See Analytic supplement to Self-analysis Table 4.1.a Staff Structure - FOR UNIVERSITIES in the evaluated academic year.

See Analytic supplement to Self-analysis Table 4.2. The dynamics of recruiting teachers and associates over the last 5 years

See Analytic supplement to Self-analysis Table 4.3. Teachers and assistants at the HEI in the evaluated academic year

See Analytic supplement to Self-analysis able 4.4. Teachers in study programs in the evaluated academic year

#### 4.1.2.

Student-teacher (permanent employment) ratio at the School is suitable for efficient studying.

In the academic year 2020/2021 there have been 616 students in total at the IUGUS-DM; 41 students at the PGSS-DM; 77 students at the PGSS-DI; 250 students at the PGDS-DM. That is a total of 984 students at all studies. A total number of permanently employed teachers in scientific-teaching positions (full and associate professors, assistant professors) is 139, with a teacher-student ratio of 1:7 (or 1:4 if only students at the integrated study are taken into account). If we add assistants and postdoctoral researchers engaged in carrying out exercises at the integrated study to the number of teachers, the ratio is 1:3.7. A relatively favourable teacher-student ratio enables individual and personalised approach to students and the work in small groups, which significantly increases the teaching quality, especially teaching that includes preclinical and clinical practical work.

Based on external collaboration with the School of Medicine University of Zagreb for the purposes of teaching courses at the first, second and third year of the study (Anatomy, Biochemistry, Physics, Chemistry, Cell biology with genetics, Histology with embryology and Statistics in dental medicine), along with the School's teachers, additional 53 teachers have been employed, out of which 24 full professors, 10 associate professors, 16 assistant professors and 3 assistants. That makes the teacher-student ratio even more favourable. At the beginning of each academic year the School Council decides on the employment of teachers on the basis of external co-operation at the suggestion of the School of Medicine University of Zagreb.

See Analytic supplement to Self-analysis Table 3.1. Number of students per study programme for the evaluated academic year

#### 4.1.3.

Teacher workload is in accordance with the relevant legal and sublegal regulations, acts of the relevant bodies, collective agreements, etc.

Workload of School teachers is coordinated with the Labour Act (Official Gazette 93/14, 127/17, 98/19) (IV#1), the Basic Collective Agreement for public servants (Official Gazette 128/17) (IV#2), the Act on Scientific Activity and Higher Education (Official Gazette 123/03, 198/03, 105/04, 174/04, 2/07, 46/07, 45/09, 63/11, 94/13, 139/13, 101/14, 60/15, 131/17) (IV#3), the Collective Agreement for Science and Higher Education (Official Gazette 9/19) (IV#4), the Statute of the University of Zagreb (IV#5), and the Bylaws of the School of Dental Medicine University of Zagreb (IV#6). All the data on study programmes and courses (leaders, teachers, content, schedule and workload) are available on the School's website (IV#7, IV#8).

#### 4.1.4.

Teacher workload ensures an even distribution of teaching obligations, scientific/artistic work, professional and personal development, and administrative obligations.

Workload of the School's teachers is such that it enables an even distribution of teaching obligations and work in science, i.e. research with enough time for professional and personal development, and fulfilling administrative and institutional obligations, all in accordance with the Labour Act (Official Gazette 93/14, 127/17, 98/19) (IV#1), the Basic Collective Agreement for public servants (Official Gazette 128/17) (IV#2), the Act on Scientific Activity and Higher Education (Official Gazette 123/03, 198/03, 105/04, 174/04, 2/07, 46/07, 45/09, 63/11, 94/13, 139/13, 101/14, 60/15, 131/17) (IV#3), the Collective Agreement for Science and Higher Education (Official Gazette 9/19) (IV#4), the Statute of the University of Zagreb (IV#5), and the Bylaws of the School of Dental Medicine University of Zagreb (IV#6).

A balanced distribution of obligations enables professional and scientific training to teachers in Croatia and abroad and to include the newly-acquired knowledge, skills and competences in their teaching, scientific and professional work at the School, passing it on to students through the teaching process, but also to their colleagues in the form of continuing training programme, which is considered an important factor in modernising study programmes and the education of contemporary doctors of dental medicine.

See Analytic supplement to Self-analysis Table 4.3. Teachers and assistants at the HEI in the evaluated academic year

#### 4.1.5.

Teachers are qualified for the course/courses they teach.

The School's teachers are qualified for teaching the courses they are employed to teach. They all have completed selections into the necessary scientific or scientific-teaching titles from the adequate fields and areas, and they possess the necessary knowledge, skills, and competences. The criteria of election and re-election into scientific-teaching titles include the results of the candidate's scientific, teaching, and professional work so far at the domestic

and international level, and their contribution to the work of the School, the University, academia, and the society in general. Besides, it is a specificity that a precondition for the assistant professor on preclinical and clinical medical and dental subjects is a completed medical, i.e., dental specialty in a relevant area, which is additional proof of eligibility for teaching a particular subject. Teachers are encouraged to publish university textbooks, manuals, and educational texts for the subjects they teach to give students a contemporary, high-quality reading material and enable quicker and simpler achievement of anticipated learning outcomes.

See Analytic supplement to Self-analysis Table 4.3. Teachers and assistants at the HEI in the evaluated academic year

## 4.2. Employment, promotion, and re-election of teachers is based on objective and transparent procedures which include excellence evaluation

#### 4.2.1.

Teacher employment procedures result from the development goals of the higher education institution and are in compliance with the positive legal regulations and internal acts.

Taking into consideration that the School's mission is excellence and innovativeness in education, research and treatment so that students could become modern doctors of dental medicine capable of facing global social changes and challenges, but also flexible when it comes to changes and needs of the society, the procedure of election and employment of teachers is approached with utmost attention and thoughtfulness. Teacher employment procedure at the School is carried out in accordance with: the Labour Act (Official Gazette 93/14, 127/17, 98/19) (IV#1), the Basic Collective Agreement for Public Servants (Official Gazette 128/17) (IV#2), the Act on Scientific Activity and Higher Education (Official Gazette 123/03, 198/03, 105/04, 174/04, 2/07, 46/07, 45/09, 63/11, 94/13, 139/13, 101/14, 60/15, 131/17) (IV#3), the Collective Agreement for Science and Higher Education (Official Gazette 9/19) (IV#4), the Statute of the University of Zagreb (IV#5), and the Bylaws of the School of Dental Medicine University of Zagreb (IV#6), Regulations on Conditions for the Appointment to Scientific Titles (Official Gazette 28/17) (IV#7), Amendment Regulations to the Regulations on Conditions for the Appointment to Scientific Titles (Official Gazette 72/19, 20/21) (IV#8), Regulations on the Minimal Conditions of Work Obligations for the Re-election to Scientific, Scientific-teaching, Artisticteaching, Teaching and Professional Positions and the Form of the Report of the Expert Committee on the Work of Employees in the Re-election Procedure (Official Gazette 24/21) (IV#9), and the Decision on the Necessary Conditions for Assessing the Teaching and Scientific-professional Activity in the Procedure of Re-election to Scientific-teaching Titles (Official Gazette 122/17) (IV#10). The School as a public institution is subject to the Regulation on the Titles of Work Positions and Coefficients of Work Complexity in Public Services. The promotion of the School's existing teachers and associates, and the employment of new teaching and non-teaching staff is therefore limited by the system of coefficients of work complexity which is applied in the Republic of Croatia. The overall number of coefficients for each institution within the system is constant. That is why any new employments or promotions are possible only if there is an available coefficient for it at the level of the School. The coefficient becomes available when a teacher retires, i.e., when they stop working at the School. Taking into consideration the existing legal framework and the current situation at the School and at the University, and probably at other universities in the Republic of Croatia as well, where there is a so-called "inverted pyramid"

in which there is the largest number of the highest scientific-teaching titles among the teaching staff and a shortage of postgraduate researchers and assistants, the coefficient system significantly limit any long-term planning of the staff policy and human resources management with emphasis on renewing staff. Outside the coefficient system there are five assistants employed at the School who are postdoctoral researchers at scientific projects of the Croatian Science Foundation and are primarily engaged in scientific activity.

According to the request of the University, the School produces a Plan of managing human potential for the next calendar year at the end of each calendar year (IV#11). The following employees are put in the Plan: all candidates who meet the requirements for the scientific-teaching advancement in the following year if five years have passed since their previous election; all the School's employees who will retire in the following year; all the employees who have left the School since the last Plan or have announced their leave in the following year; and the requests for new positions sent to the School's management by department and chair heads during the year, in accordance with the available coefficient and priorities (teaching workload and medium-term perspective of staff needs of the department, i.e., chair in the context of the retirement of certain teachers is taken into consideration). Before making the Plan the Vice dean for Teaching and Students has a conversation with every teacher whose five years since the last election expire in the following calendar year in order to determine if the teacher meets the conditions for the election to a higher scientific-teaching title. In that way the available coefficient is being managed in the most rational possible way because teachers who do not meet the required conditions for the election are not put in the Plan. After the Senate of the University approves the Plan of managing human resources, the University is asked to give their approval for the promotions and new employments according to the Plan. After obtaining the University's approval for the asked promotions and employments (IV#12), the School asks for the approval of the Ministry of Science and Education of the Republic of Croatia for those promotions and employments, with the note that the Ministry of Science and Education requests that the overall number of new employments must not exceed the number of teachers who have retired or have left the School for some other reason in the previous year (one person can enter the system only if another person has left the system in that same period). Only when the Ministry of Science and Education gives the approval (IV#13) can the Teacher Election Board make a request to the School Council for the public call for applications for the election of new teachers (promotions and employments). The call is published in the Official Gazette, in the daily press, on the School's website and on the official internet portal for job applications of the European research space (EURAXESS). The call is open for 30 days since the last publication of the call (IV#14, IV#15).

**4.2.2.**When electing, appointing, and evaluating teachers, their activities so far are taken into consideration.

During the procedure of evaluating, electing and appointing teachers, whether with promotions or new employments, criteria set in the Decision on the Necessary Requirements for the Assessment of Teaching and Scientific-professional Activity in the Appointment Procedure to Scientific-Teaching Titles, Official Gazette 122/2017 of the Rector's Assembly and the National Council for Science, Higher Education and Technological Development which include previous teaching, scientific-professional and institutional contribution of the candidates. The list of all the necessary documentation that the applicants must submit in the application procedure, as well as the evaluation criteria are available on the School's website (IV#16). Guidelines for the applicant for the

preparation of the documentation and the submission of supplements for the appointment to scientific-teaching title (IV#17). The documentation includes, among other things, a CV, a list of published scientific and professional papers with their copies, confirmation on the indexation of the papers, confirmation of the citations of the papers, and other proof of meeting the requirements for the appointment. The applicant must support all statements in the application by adequate and reliable evidence because stating the facts without providing evidence is not taken into consideration and can disqualify the applicant.

#### 4.2.3.

Higher education institution has adequate methods of electing the best candidates for each position and has prescribed competitive criteria for screening excellence along with the prescribed national minimal requirements for a certain position.

Once the deadline for the application has passed, the expert committee suggested by the Teacher Election Board and appointed by the School Council analyses the received applications and the related documentation. The committee consists of three members, one of which is a member outside the School (not a School employee and not having any contractual relationship with the School). Members of the expert committee must be of the same scientific-teaching title of the applicant or higher. Every applicant is evaluated according to their previous teaching, scientific-professional and institutional contribution according to the Decision on the Necessary Requirements for the Assessment of Teaching and Scientific-Professional Activity in the Appointment Procedure to Scientific-Teaching Titles. In order to make the entire procedure as transparent, simple and quick as possible, Guidelines for the expert committee for filling out forms of the Rector's Assembly for the appointment to scientific-teaching title (IV#18), and Guidelines for filling out the Form for the appointment to scientific titles of the Field committee for biomedicine and health (IV#19) were made.

After the expert committee delivers its opinions and structured reports on applicants on the prescribed forms (IV#20 to IV#24) to the Teacher Election Board, the Board analyses them and gives their selection of the best applicants to the School Council. The decision on the appointment of postdoctoral researchers and assistants is final once the School Council confirms it, while the suggestions on the appointment to scientific-teaching titles are sent to relevant bodies of the University after having been accepted at the School Council. The decision on the appointment is final only after the confirmation of the Senate of the University for full professors in permanent status and full professors (first choice), i.e., the confirmation of the Biomedical Field Council for associate professors and assistant professors. After the expiration of the appeal period, an employment contract is signed with the elected applicants.

#### 4.2.4.

Procedures for promoting teachers to higher titles are based on evaluating and rewarding excellence and take into consideration important achievements.

If two or more candidates for the appointment to scientific-teaching title are applying for the same position, the person with a higher number of fulfilled requirements is chosen. If they have the same number of fulfilled requirements, advantage is given to the applicant with better evidence of excellence: scientometric data (h-index, citation, impact factors and the quartile of a journal according to subject categories), domestic and international awards for scientific, teaching, and professional activity, the results of student evaluations of the work of teachers, etc.

If two or more candidates for the appointment of assistants or postdoctoral researchers are applying for the same position, the following is taken into consideration during the evaluation of candidates: GPA achieved at the graduate study, awards and acknowledgements received during the study, enrolled/completed postgraduate specialist study, enrolled/completed postgraduate doctoral study, enrolled/completed speciality, the number of in extenso

papers published in journals indexed in the Current Contents, the number of in extenso papers published in journals indexed in Scopus, the number of in extenso papers published in other journals, the number of presentations at scientific/professional gatherings in Croatia, the number of presentations at scientific/professional gatherings abroad, curricular and extracurricular activities during and after the study, the level of English language proficiency, the level of proficiency in other foreign languages, computer literacy and skills.

#### 4.2.5.

Excellence indicators include scientific/ artistic, teaching, and professional work and contribution to the development of the higher education institution.

Excellence indicators that the School uses during the evaluation of the work of teachers for the purposes of promotion, but also for other purposes, are defined by the Decision on the Necessary Requirements for the Assessment of Teaching and Scientific-Professional Activity in the Appointment Procedure to Scientific-Teaching Titles, Official Gazette 122/2017 (IV#25). In teaching terms, these indicators include, among other things, mentorships or co-mentorships in writing theses along with publishing papers in co-authorship with the student; scientific, teaching or professional training; publishing university text-books or manuals; mentorships in writing doctoral dissertations; reviewing study programmes, textbook or manuals, etc.

The most important scientific excellence indicators include international recognition on the basis of scientometric data, invited lectures on domestic and international gatherings, scientific projects, reviewing articles and projects, organising scientific gatherings, publishing professional papers, and participating in programmes of science popularisation.

Valued as indicators of the applicant's contribution to the development of the School and its position, i.e., recognition in the academic community, as well as in society in general are: serving as head or leader at the School; membership in university bodies and leadership in the bodies at the constituent; realisation of university or professional projects; participation in the implementation of programmes of knowledge and technology transfer; membership in international or national bodies for science and higher education; membership in the editorial board of scientific and professional journals, etc.

Especially notable are international or prestigious national awards or acknowledgements for the scientific, teaching, or professional work awarded by academic institutions, associations or other relevant national or international bodies. Applicants must accompany everything they state with adequate evidence whose validity can be easily verified.

#### 4.2.6.

Additional criteria for the promotion of teachers to higher titles reflect strategic goals of the higher education institution. Promotion of teachers to higher titles is done in accordance with the annual Plan of human potential management and personnel policy of the School (IV#11), within the available co-efficient, because every promotion must have provided financing of the higher title and the corresponding position.

Strategic goals of the School are, based on the excellence of the teaching and educational process, to educate students and to include them in the scientific and health work, and to become the leading educational institution of this orientation in the wider region and the first choice of future students, candidates for the title doctor of dental medicine. This goal cannot be achieved without excellent and motivated teachers. That is why the Vice Dean for Teaching and Students, as well as the entire School management, is taking individual care of each and every teacher so that they could achieve as many requirements for the promotion as possible when the time comes. In doing so, no additional criteria are being applied, but the tendency is to fulfil the existing criteria in the best possible way.

## 4.3. Higher education institution offers support to teachers in their professional development.

#### 4.3.1.

Higher education institution offers the possibility of improving teacher competences at the level of the constituent or university.

The School continually and systematically takes care of improving teaching competences of all teachers, and especially of the ones who are just starting their career. Teachers from the ranks of assistants and postdoctoral researchers who are just starting their career are introduced to teaching (exercises and seminars) gradually and under the mentorship of their older colleagues. Once a year all assistants and postdoctoral researchers carry out a self-evaluation of their teaching and scientific activities during the previous year (IV#26). That self-evaluation is the basis for making an annual report on the work of each assistant, i.e., postdoctoral researcher. Mentors write reports for assistants and heads of departments/chairs write reports for postdoctoral researchers. Reports are submitted on a standardised form (IV#27).

In the period between 2015 and 2021, the School's teachers have participated in symposia, workshops and other gatherings in Croatia and abroad which have contributed to the improvement of their teaching competences:

- 7 10 December 2015, study trip of a group of the School's teachers to Tromso in Norway to visit the Faculty of Dentistry University of Tromso
- 12 13 February 2016, symposium "Improving the study programme of Dental Medicine in accordance with the CQF", Opatija
- 6 8 September 2016, study trip by a group of the School's teachers to Brescia in Italy to visit the School of Dentistry University of Brescia
- 10 14 December 2018, Academic Teaching Excellence: British Council, Zagreb
- 17 21 December 2018, Academic Teaching Excellence: British Council,
   Zagreb
- 14 18 January 2019, Academic Teaching Excellence: British Council,
   Zagreb
- 6 and 13 February 2019, workshop "How to start developing an e-course?"
   SRCE
- 7 8 and 14 15 February 2019, course "The basics of Merlin" SRCE
- 26 February 2019, workshop by the Ministry of Labour and Pension System of the Republic of Croatia "Implementation of the CQF and the development of tools in connecting education and the labour market"
- 3 6 May 2018, study trip by a group of the School's teachers to Brescia to participate in the 15th Innovations in Education Colloquium, University of Brescia, Italy
- February 2019, SRCE
- 15 16 April 2019, study trip by a group of the School's teachers to Split to visit the School of Medicine University of Split (the study of Dental Medicine)
- 16 17 April 2019, study trip of a group of the School's teachers to Mostar to visit the School of Medicine University of Mostar, Bosnia and Herzegovina (the study of Dental Medicine)
- 30 August 3 September 2021, education course Academia Master Class,
   Zagreb
- 6 10 September 2021, education course Academia Master Class, Zagreb Other than these stated above, the School's teachers regularly participate in congresses and gatherings organised by the Association for Dental Education in Europe (ADEE) an organisation which gathers all those included in dental

education and whose main task is to improve education and the standardisation of the educational process in dentistry.

It should also be noted that through 5 held workshops (3 x "Academic Teaching Excellence - British Council" (IV#28, IV#29) during 2018 and 2019 and 2 x "Academia Master Class" in 2021) (IV#30, IV#31), a total of 64 of our teachers have attended intensive five-day courses for the improvement of teaching competences in English (30 hours of intensive interactive classes conducted entirely in English). Both activities were financed by an EU project (ESF) "Internationalisation of higher education - the study of dental medicine in English" (IV#32).

The improvement of teaching competences was also conducted through the workshops of the University Computing Centre in which teachers were taught the basics of working with the e-learning platform "Merlin" (27 teachers in 2 two-day workshops in the duration of 10 hours in February 2019) and the e-course development (28 teachers in 2 one-day workshops in the duration of 4 hours in February 2019) (IV#33).

See Analytic supplement to Self-analysis Table 4.5. Total mobility of teachers and associates in the last five academic years

#### 4.3.2.

Higher education institution encourages evaluation and improvement of teaching competences based on recommendations obtained through class performance assessment of fellow teachers and on the results of the student assessment of the work of teachers.

Evaluation of teaching competences is carried out at the level of the University, the School and the department or chair. At the level of the University, surveys are carried out according to a cyclic plan every 5 years, and the last one was in the academic year 2017/2018. This student survey on the quality of teaching and teachers is organised by the University Quality Office and implemented by the Quality Assurance Board of the School together with the departmental Vice dean. At the level of the School, regardless of university surveys, a survey is carried out on all students on the quality of teaching, teachers and teaching materials on all mandatory and elective courses at the end of each semester (IV#34) (see Chapter 3.3.3.). The Vice dean for Quality Assurance and the related board are responsible for this survey, too. At the level of the department/chair and individual courses, internal quality evaluations are carried out on the initiative of the head of the department/chair or the leader of the course. Obtained results of all forms of surveys are sent to each teacher and are discussed at departmental meetings with the goal of improving teaching competences and raising the level of teaching quality. Also, if necessary, meetings at the level of the department/chair are held before the beginning of examinations to equalise the assessment criteria.

Taking into consideration that acquiring clinical skills for work with patients is probably the most important learning outcome in the process of educating the doctor of dental medicine, the School has made a list of minimal clinical skills in collaboration with other institutions that educate doctors of dental medicine in the Republic of Croatia (IV#35). The list was made based on evaluations and experience of fellow teachers from four institutions which participate in the clinical education of students and has led to the equalisation of not only teaching competences regarding the clinical work with students, but also the criteria regarding minimal clinical skills. Namely, along with the list of minimal clinical skills, there is also a list of minimal number of procedures that a student must perform, and the level of independence in clinical work expected from the student for each procedure.

#### 4.3.3.

Teachers participate in international mobility programmes, collaborative projects, networks, etc.

Teachers usually participate in 2 types of academic mobility: in Erasmus Staff mobility and through University financing. The ranking list of candidates for financing at the level of the institution is compiled according to clear and transparent criteria (IV#36), and the list of implemented academic and Erasmus Staff mobility is documented by the School (IV#37).

Teachers also arrange and organise additional scientific and professional mobility themselves (IV#38), and many foreign teachers visit and hold lectures at our School (IV#39). In relation with collaborative projects and networks, our institution is a partner in the realisation of the Erasmus+ KA202 (Strategic partnership) project "Oral Potentially Malignant Disorders: Training of Healthcare Professionals". The co-ordinator of the project is University College London, and partners are universities from Europe - Bordeaux, Milan, Santiago de Compostela and Granada. The value of the project is 220,710 EUR, and the duration is from November 2020 to August 2023. The School's team leader is Professor Vlaho Brailo, PhD (IV#40).

# 4.4. Space, equipment and overall infrastructure (laboratories, IT service, working areas, etc.) are suitable for the implementation of study programmes and ensure the achievement of anticipated learning outcomes, as well as the realisation of scientific/artistic and professional activity

#### 4.4.1.

Higher education institution plans and improves the infrastructural development in accordance with the strategic goals.

Relying primarily on its own efforts, the School pays much attention to the lack of space, i.e. to the infrastructural development which will most likely be financed from the EU funds. The property-legal documentation of the facility at the School's address at 5, Gundulićeva Street which is being upgraded/converted is finally settled, and that was an extremely important precondition for applying to any future competitions for the EU funds. Conducted elaboration of the segmentation of the space and land registration enabled fulfilment of the basic precondition for acquiring conditions for the upgrade of the School at the current location. What followed next was the drafting of the "Conceptual design of the reconstruction and upgrade of the School of Dental Medicine" and the obtaining of the general permission from the Zagreb Mayor's Office, of course in compliance with the existing zoning plan and legal procedure.

Due to the existing Detailed Urban Plan (DUP) of the bloc Ilica - Preobraženska - Preradovićev trg - Varšavska – Gundulićeva which prevents the School's extension, some modifications had to be made. The School's management has carried out a series of actions before the bodies of the city administration, and based on its guidelines a Programme for Amendments to the Detailed Urban Plan (DUP) was made and submitted for verification (IV#41). It was confirmed by the Council of the District Donji Grad in February 2021 and submitted to the City Assembly for adoption, where it is waiting for the resumption of the procedure. The adoption of the new DUP would enable the drafting of the project and the implementation of the upgrade of the existing courtyard buildings and the building of a new building of appropriate space and content (instead of the current single storey courtyard building) which would enable the increase of the area of the School of Dental Medicine by almost 2000 m<sup>2</sup>. Along with the initiated procedures for the future upgrade, since the last re-accreditation the School has increased its space capacities by 392 m<sup>2</sup> by leasing a ground-level space (130 m<sup>2</sup>) that needed fixing in 21, Ilica Street from the then Ministry of State Property which could be connected with the existing infrastructure of the School. Using mostly its own resources and partly resources from the University, the School has reconstructed and equipped a modern preclinical exercise room with 16 preclinical working units and a space for the archives of student records in accordance with the Archives And Archival Institutions Act (IV#42).

The remaining 162 m² refers to the private residential space in the street building of the School which was bought last year and which solved the potential problem of the School upgrade. The investment of buying the property was covered by the Ministry of Science and Education, and the reconstruction and the equipping of the space will be financed completely by the School with its own resources (IV#43). The said space will be converted into a modern student clinical exercise room (10 clinical units + sterilisation area, waiting room for patients) (IV#44), a new and fully equipped computer room/lecture room with 20 working units and a new science laboratory (approx. 30 m²) which will be equipped with appliances for scientific research devices purchased from the projects of the Croatian Science Foundation and scientific research grants of the University (IV#45). These new space capacities will contribute to the improvement of the quality of the teaching process and to the scientific-research productivity of the School's employees.

At the time of the last re-accreditation the School (teaching bases excluded)

See Analytic supplement to Self-analysis Table 4.8. Space

#### 4.4.2.

Space, equipment, and overall infrastructure (laboratories, IT service working units, etc.) are suitable for the implementation of study programmes and ensure the achievement of anticipated learning outcomes.

extended over approximately 4110 m<sup>2</sup> including its own space (3150 m<sup>2</sup>) and space in long-term lease (960 m<sup>2</sup>). New 392 m<sup>2</sup> of new space, suitably equipped or in the process of adaptation are added to that (see Chapter 4.4.1.). At the School there are nine departments (and eight clinical departments of the Department of Dental Medicine of the University Hospital Centre Zagreb, hereinafter the Department) in which the scientific, teaching, and professional activity of the School and the Department is implemented. All departments (total area approximately 1800 m<sup>2</sup>) have their own clinics and related dental laboratories for clinical exercises of students in senior years of the study. Clinical exercise rooms are equipped with 73 functional dental working units which are successively replaced with new ones depending on their age. Nine have been replaced and one new has been added since the last re-accreditation. The School has two fully equipped preclinical exercise rooms. The older one (approximately 70 m<sup>2</sup>) has gone through a renewal of infrastructure and IT, while the second, newer one (approximately 80 m<sup>2</sup>) has been adapted and fully equipped in the space rented from the Ministry of State Property. The School uses two lecture rooms (80 and 70 m<sup>2</sup>) and 4 seminar rooms (each approximately 20 m<sup>2</sup>). All the rooms are equipped with all the necessary teaching aids and equipment (computers, LCD projectors, smart boards). There is one computer room with 16 working units at the School which is available to students during classes, and another computer room with 20 working units is being adapted, which can also be used as an auxiliary lecture room for students of Dental Medicine in English. During the School working hours (8 am – 8 pm), 10 computers with internet connection are available to students at the gallery of the School library. It should also be noted that the entire School is covered by Wi-Fi network which enables free internet to students on their own computers or smartphones. The modernisation of the electronic equipment is being systematically planned and implemented according to the School's financial

ability and by following the procedures of public procurement. Physical education classes are conducted in the Martinovka sports hall, where the School

rents space in the amount of time enough for holding classes and the training of the sports section.

Although the lack of space is a well-known problem, the existing space is enough for implementing all study programmes of the School. The space of our teaching bases (the School of Medicine, the Sisters of Charity Hospital, the Clinical Hospital Dubrava, the University Hospital for Infectious Diseases Dr Fran Mihaljević and the University Hospital Centre Zagreb) where the classes of basic and clinical medical courses are conducted certainly contributes to that. Each of our Departments has clinical exercise and seminar rooms in these institutions which are used for teaching of our students by the teachers and employees of teaching bases.

Despite the earthquakes which have recently hit Zagreb (22 March 2020 and 29 December 2020), the rooms, the equipment and the overall infrastructure of the School are completely functional. Immediately after the first earthquake the School has started a successive restoration of all rooms that needed adaptation. The damage was significant, but it did not affect the structural support of the building, so the restoration was finished relatively quickly, and the lessons resumed by mid-May 2020. The earthquake also caused damage to the IT infrastructure and approximately 20 computers were replaced with new ones. Due to the earthquake damage and the lockdown caused by the pandemic, lessons in the summer semester of the academic year 2019/2020 have been conducted online until mid-May 2020 when preclinical and clinical exercises resumed in person, but in small groups with adherence to all epidemiological measures. In the academic year 2020/2021 lessons were conducted in a hybrid way and /or in person, according to the situation with the pandemic and the measures of the Crisis Headquarters. Unfortunately, due to severe damage caused by the earthquakes which require complex restoration of the teaching base construction at the School of Medicine (first year of study), part of classes had to be reorganised into an online and/or hybrid form and is being conducted successfully. Our teaching bases in the Sisters of Charity Hospital and in the Clinical Hospital Dubrava have not suffered any significant damage and the lessons are conducted without difficulty, according to the measures of the Crisis Headquarters.

#### 4.4.3.

Space, equipment and the overall infrastructure (laboratories, IT service, working units, etc.) are suitable for the realisation of scientific/artistic and professional activity.

Scientific-research work, teaching activities and professional activity of the School's employees are intertwined and it is impossible to separate space and infrastructure capacities for only a certain activity. The space usage is multi-purpose, and the investments in space and equipment are multifunctional. So, for example, the newly furnished preclinical exercise room is being used for lessons of the students of the integrated study, postgraduate studies and for lifelong education courses organised by the School. Also, the newly purchased residential place, which will be repurposed and turned into a modern student clinical exercise room, will be used for holding lifelong education courses in the period when there are no classes for students. Teachers/scientific employees have basic communication infrastructure and equipment at their disposal in their offices. However, the current number of teachers' offices, as well as their size, is not adequate for teaching and scientific work. It should also be noted that oral examinations and mid-term exams of students of the integrated and postgraduate studies are held in teachers' offices, which makes the lack of space even more prominent. The problem is somewhat diminished by having the employees work according to a set schedule to avoid teacher overlaps in the same space.

A part of the equipment acquired for scientific research was dislocated from the teacher's office to a temporary "science laboratory" room (20 m²) to make it available to all interested researchers during the working hours of the School. A space (30 m²) was designated in the newly purchased residential place to be adapted, equipped with laboratory furniture and used for the new science laboratory where all the other devices and appliances for scientific research will be placed. Although students of both the integrated study and postgraduate studies evaluate infrastructural capacities of the School as favourable (4 – very good), further investments are certainly necessary. Insufficient space prevents the School from fully developing in order to maintain its leading position in the Republic of Croatia, be competitive among European universities and become the leading scientific and professional dental education institution in this part of Europe.

## 4.5. The library, its equipments, and access to additional content ensure the availability of literature and library services for the purpose of enabling high-quality studying and scientific-teaching / artistic-teaching activity.

#### 4.5.1.

The library, its equipments, and additional content ensure the demands of high-quality studying.

The Central Dental Library (hereinafter the Library) acts as a separate organisational unit with the purpose of efficient and complete ensuring of conditions for the realisation of scientific-research, teaching and educational activity of the School which is regulated by the Regulations on the work of the library (IV#46). The Library Board suggests measures for the development and the improvement of the work of the Library and undertakes other activities which are important for the work of the Library. Two professional workers are employed in the Library who follow the development of the library activity standards and new work technologies through constant professional training. Library activity includes in particular: procurement, professional processing, conservation and protection of the library materials, making catalogues, bibliographies and other information aids, participation in the creation of collective catalogues and databases, enabling the availability of library materials and information to users according to their needs and demands, ensuring the use and loan of library materials, dataflow, encouraging and helping users choose and use library material. Information aids and sources and keeping records on library materials and users.

The total area of the Library is approximately 165 m<sup>2</sup>; it contains open stacks with the Library holdings, with a smaller part of the older and more valuable materials placed in closed stacks and its usage limited to the reading room. In the central part of the Library is a reading room with 19 working spaces equipped with 14 user computers, and in the gallery there is a Student Informatics Reading Room with 14 more working spaces and 10 computers, which enables full-time study work and use of the Internet. Students can also use their own portable devices via wireless network.

Library materials are built through purchases, gifts, legal deposit, and replacements. The Library currently holds 8671 units of materials, 2914 of which volumes of books, 3957 evaluation works (bachelor's theses, master's theses, doctoral dissertations) and 1800 CDs (mostly evaluation works). Students can use a student collection with 248 titles (1065 volumes). There is also a substantial collection of over 120 copies of journals on dentistry and related fields. The

Library uses an integrated library system Aleph for processing library materials and tracking its circulation among users. Library materials are available and can be searched in the network catalogue where users can find information on materials possession and on the availability of the copy. That part of the materials is integrated in the collective catalogue of the University (approx. 40 higher education libraries). Journals can be searched in a separate database made in a parent institution, but its inclusion in the library system was initiated. Links to free e-books from the field of dental medicine and the list of the School's employees' textbooks published in the publishing unit University Textbooks are available on the Library website (IV#47). The Library has been collecting evaluation works and storing them in a digital repository of the School – DABAR since 2013. Currently there are 909 stored objects, mostly theses (73.9%), and most are open access objects (95.5%) which ensures great visibility and consequently a large number of views. Answers to frequently asked questions on using the Library, loans, reservation of materials, working hours, possession of certain publications, and the possibility of using the network can also be found on the Library website. The website is also in English for foreign students\_(IV#48). Notifications and news on events, new services and books in the Library are also available on the Library website and Facebook page.

See Analytic supplement to Self-analysis Table 4.10. Library equipments

#### 4.5.2.

The library, its equipment, and additional content ensure the demands of a high-quality scientificteaching / artisticteaching activity.

The Library offers a website with useful informative and educational content intended for students and the scientific-teaching staff of the School. Apart from the basic information on the Library, various forms of educational content for studying and scientific work is available on the website.

Necessary information on the making of bibliometric certificates needed for advancement purposes in scientific-teaching titles and for all other needs of the scientific-teaching staff and for postgraduates with quantitative representation of their scientific productivity (IV#49) are listed on a separate site.

Information and links to book and journal catalogues, databases of evaluation works, bibliographies, databases, and repositories are also available. Journals of utmost importance for the scientific-teaching staff which the School purchases with its own funds (13 titles) are listed on the website along with links to their digital editions and the instructions on the way of e-access. Approximately 40 bases of scientific data and journal and book collections are available to users through the Electronic Sources Portal for the Croatian academic and scientific community. The most relevant ones for the biomedical field are isolated on the Library website together with the instructions for remote access outside the parent institution. Users can also use an interface for integrated search of all databases, a so-called Discovery Service (IV#50).

The Library holds group and individual seminars and workshops from the field of computer literacy; especially on using software for citations and bibliography when writing doctoral dissertations, seminar papers and other scientific and professional papers. Bearing in mind the needs of its users, the lack of library space and trends in building collections of modern higher education libraries, the Library will in the future focus more intensely on modernising library materials, acquiring e-sources and educating users on their usage.

#### 4.6. Higher education institution manages its financial resources in a rational way

#### 4.6.1.

Financial sustainability and efficiency are visible in all aspects of the work of the higher education institution.

The School is a scientific-teaching institution financed mostly from the state budget through the Ministry of Science and Education which in 2021 amounted to 44,119,612.26 kn, which includes 2,800,000 kn obtained through lobbying for the co-financing for the purchase of the space in the street building of the School (non-financial assets). That same year the overall turnover of the School was 57,467,457.66 kn which means that the share of the budgetary resources in the overall turnover of the School was only 76.77%. In 2012 it amounted to 87%, less than 86% in 2013, and has been constantly decreasing in the last few years. It is evident that the School must earn the difference in funds for the normal activity of the School by itself, so the most important sources, revenue from its own activity and revenue according to special regulations, which in 2021 amounted to 4,287,037.46 kn and 6,304,996.18 kn respectively (5,547,577.30 kn only from tuitions for the study in English). Out of revenues from the budget of other public sources, the most significant are the ones by the Croatian Science Foundation in the amount of 2,013,220.09 kn, which have increased by 160% in comparison with 2020 due to approved financing of new scientific projects. We should also mention here the resources for the project "The study of Dental Medicine in English" which is being implemented within the call for the allocation of EU non-refundable resources: Internationalisation of Higher Education (403,108.43 kn).

Expenditure in 2021 amounted to 55.517.227,11 kn, which means that the School had a "profit" of 1,950,230.55 kuna. This positive last year's balance sheet is the continuation of the positive business activity by the School's management that has been present for several years despite the constant reduction of the budgetary resources share (for example, the Ministry of Science and Education has already defined a reduction of the budget revenue of 1% for 2022). Being more than aware that the School is not a profitable institution, these "own" resources give us a certain degree of autonomy and flexibility in business activity. Namely, advances on tuition fees of regularly enrolled students (in 2021 that amounted to 2,127,861.31 kn) are paid at the beginning of the academic year in the amount of 10%, and the rest is paid towards the end of the academic year. It goes without saying that the utilities and other business expenses, which are not negligible, have to be paid each month. Besides, all the EU projects that have been carried out so far had to be financed in advance and the reimbursement of the already spent money can be obtained only after the completion of a certain phase of the project, after an adequately submitted Request for Reimbursement of Resources. So, for example, although the Agreement on the allocation of non-refundable funds for the operation, Restoration of damage caused by the earthquake to facilities of the School of Dental Medicine in Zagreb", FSEU.2021.MZO.047. (financed from the European Union Solidarity Fund – in the amount of 413,257 kn), was signed back in July 2021, the said resources have not been paid out by March 2022. As for the resources from the state budget, most of it is used for the total salaries and other employee salary expenses (salary contributions and other employee expenses) which in 2021 amounted to 41,133,427.15 kn, which is 93.23% of the overall amount of assigned resources from the state budget for that year. For comparison, in 2013 that ratio was "only" 85.6%, so it is not hard to notice that less and less of budget resources remains for material costs, investment maintenance of the School, procurement of equipment, etc. Without making its "own" resources, such a deficit of budget resources would certainly have a negative effect on the teaching and scientific-research activity of the School. Unfortunately, part of the School's own resources are used for financing the costs of "external collaboration", i.e., classes on the first and second years of the IUGUS-DM, which have been held at the School of Medicine University of Zagreb ever since the School of Dental Medicine was founded. These costs include teaching fees for external associates (teaching and non-teaching staff of the School of Medicine) in the amount of 884,059.30 kn in 2021, and fees for using the space in the School of Medicine for teaching in the amount of 499,992.00 kn per year. It is evident that the resources assigned by the University for the tuition fees of full-time students (2,127,861.31 kn for 2021) are hardly enough for covering the costs of "external collaboration" (a total of 1,384,051.30 kn in 2021) so that the students of the first and part of the second year could attend classes without interruptions. The remaining amount of the assigned tuition fees (743,810.01 kn in 2021) is definitely not enough for covering all teaching costs of the remaining years of the integrated study, so the School has to pay for the cost difference from its own resources to enable high-quality studying to students.

It is evident that in the period between two re-accreditations the School has stabilised its financial activity which is now less dependent on budget resources regarding material costs. In 2017 the first generation of students of the IUGUS-DM in English which pay "market" tuition fees were enrolled. Since then, a new generation is enrolled each year (now in their fifth year), the overall number of students who pay tuition is growing and with it the School's revenue. The introduction of a one-year PGSS-DI (in 2016) also had a positive financial effect in the PGSS segment as well. Encouraged by this good experience, the School has just initiated two new "professionally attractive" studies: PGSS-DP and PGSS-ERDM which have already passed the evaluation process at the University. They should enrol new students with the new academic year and the tuition fees will additionally strengthen the School's revenues. When it comes to revenue, we must not forget the PGDS-DM where almost maximum quotas of students have been enrolled for years on end whose tuition fees significantly increase the School's budget. In the past period the number of participants of courses and congresses organised by the School has also increased, resulting in a positive financial result in that segment, too despite the pandemic in 2021.

See Analytic supplement to Self-analysis Table 4.11. Financial evaluation - income and Table 4.12. Financial evaluation — expenses

#### 4.6.2.

Higher education institution manages its financial resources in a transparent, efficient, and purposeful way.

When we talk about business transparency, it presumes that all the interested parties can and must get accurate and complete information on financing which are presented in an understandable way. Except for being a legal obligation, the transparency of business activity also has a positive effect on the institution management quality generating a specific financial benefit, because the bigger the transparency, the more efficient the spending of financial resources. As budget beneficiaries we are obliged to make an annual plan of revenue and expenditure for the following academic year with projections for the next two years, which is made (and controlled) according to the guidelines of the Ministry of Science and Education and the Ministry of Finance, regardless of whether they are budget resources or the School's own. At the end of the calendar year the plan is presented to the School Council which has to approve it in order for it to become valid. It is then published on the School's

website and sent to the University and the relevant ministries. If there are any changes (deviations) from the said plan, the School Council has to be asked for an approval for amendments to the financial plan along with its explanation, which is again published on the School's website. We can therefore conclude that all the spent resources, budget and School's, are used transparently, strictly respecting the applicable legal framework (the Budget Act (IV#51), the Accounting Act (IV#52), Regulations on the budget accounting (IV#53) and the Regulations on own resources spending (IV#54). While doing so, the procedure of procurement, both simple/bargaining and public. Public procurement procedures are published in the Electronic Public Procurement Classifieds and on the School's website, as well as the results, i.e. the chosen suppliers. The School also fulfils its obligations prescribed by the Fiscal Responsibility Act (IV#55), at the same time removing drawbacks in business activity noticed according to the Questionnaire on fiscal responsibility.

See Analytic supplement to Self-analysis Table 4.11. Financial evaluation - income and Table 4.12. Financial evaluation — expenses

# **4.6.3.** Additional sources of financing are used for the development and improvement of the higher education institution.

Budget resources that the School receives are never enough for material expenditure related to the teaching activity because the education of the students of dental medicine is extremely demanding (financially, too) since the curriculum contains many preclinical and clinical exercises, which requires significant financial resources for the procurement of material and equipment. Also, all the additionally "earned" resources are used for the development and improvement of the School, both in terms of space and equipment. In 2017 the School has used mostly its own resources, and only a small part of the University resources, to completely adapt the space of the new preclinical exercise room and equip it with 16 modern preclinical working units. Public procurement of 10 new clinical working units worth over 1,500,000 kuna has just been completed, and the adaptation of the purchased space (162 m<sup>2</sup>) and its conversion to a clinical exercise room, computer classroom and the space for a science laboratory is under way, all financed from the School's own resources (estimated value of rough construction work is approx. 500,000 kn, furniture approx. 200,000 kn, computer equipment approx. 150,000 kn). The School also uses its own resources for the maintenance of the existing buildings, which became particularly obvious during the repairs of the damage caused by the earthquake. A significant amount of resources was also spent on the improvement of the IT system (new servers, cabling, Wi-Fi network, etc.) of the School, for which 1,095,931.38 kn was spent in the last 3 years.

It should be stressed that with the further reduction of the budget resources share in the School's expenditures and the constant references (for several years now) that the School will have to contribute to the state budget with its own resources, the sustainability of the teaching process at our School will be called into question. These resources, "earned" at the market, have so far been saved, except for financing the afore-mentioned expenses, for inevitable future co-financing of the planned extension and the construction of a new courtyard building of the School which will primarily have to be financed from the EU funds.

#### 4.6.4.

Additional sources of financing are ensured through national and international projects, co-operation with the industry, local community, etc.

Scientific projects of the Croatian Science Foundation also have a share in the financing sources of the School, currently 5 of them (+3 additional ones which are used only for financing the salaries for 2 assistants and postdoctoral researchers) which in 2021 have produced 2,013,220.09 kn of revenue used exclusively for financing scientific activity from the domain of approved projects. Research support resources which the University allocates to its constituents should also be mentioned. Resources in the amount of 1,432,216.21 kn have been obtained for that purpose in the last year. International projects also bring in a smaller share in the revenue resources (bilateral, Erasmus+, interinstitutional) which amounted to 541,140.30 kn in the last year. Part of the revenue was so far obtained through co-operation with the local community (the City of Zagreb), most often in the form of co-financing costs of holding congresses (27,383.00 kn in 2021). We can also mention 45,714.00 kn for student projects from the Student Centre and 9705.71 kn from the Students Council, all assigned in 2021. The School's administration has constant co-operation with companies in the field of commerce or manufacturing of dental materials which support teaching processes (materials for clinical exercises) with their donations, whether financially or through the supply of dental materials, and traditional student projects (for example, the Virtual World Congress of Dental Students, Summer School, the European Visiting Programme (EVP), the Annual Symposium of Students of Dental Medicine, etc.). It should also be stressed that since last year we have ensured collaboration with the economy through the project "Biodegradable Implants for Bone Tissue Engineering", ref. no.: KK.01.2.1.02.0209, submitted within the Call "Increasing the development of new products and services arising from R&D activities – Phase II", co-financed from the European Structural and Investment Fund in which the School is a collaborative institution for Topomatika d.o.o. - the leader of the project. Collaboration on this project has enabled employing (for the duration of the project) two young scientists who are also preparing their dissertations within the project. This collaboration achieved with the economy is less important for its additional sources of financing (11,877.82 kn in 2021 and an anticipated amount of 469,785.00 kn for 2022), and more important for the integration of scientific findings from the field of dental medicine to economic processes of our country, at the same time gathering new knowledge and experience needed for new projects in collaboration with the economy.

#### **V. SCIENTIFIC ACTIVITY**

## 5.1. Teachers and associates employed at the higher education institution are dedicated to achieving high quality and quantity of scientific research

#### 5.1.1.

Teachers and associates publish an adequate number of high-quality scientific publications.

Scientific-teaching employees of the School of Dental Medicine publish a great number of scientific papers in prestigious journals, and the number of papers and their quality has been increasing with each year. Based on the analysis of the most important citation databases, which is carried out by the School each year, the number of published scientific papers of the School's employees in the citation database Web of Science Core Collections (WOS) was:

- in 2015 84 (Q1-17, Q2-22, Q3-17 i Q4-28),
- in 2016 86 (Q1-15, Q2-27, Q3-24 i Q4-20),
- in 2017 70 (Q1-10, Q2-20, Q3-14 i Q4-26),
- in 2018 104 (Q1-15, Q2-19, Q3-37 i Q4-33) (V#1),
- in 2019 103 (Q1-23, Q2-23, Q3-23 i Q4-39) (V#2) and
- in 2020 113 (Q1-32, Q2-25, Q3-28 i Q4-28) (V#3).

In 2021 a record number of scientific papers has been published. 146 scientific papers have been published in the WoS CC database (63 in quartile Q1, 25 in Q2, 19 in Q3 and 36 in Q4) (V#4).

The ambition to raise the quality of scientific productivity is especially evident through the increase in the number of papers published in journals of the first quartile which in 2020 amounted to 28% of the overall number of papers published in the WoS, and 43% in 2021. Besides in the WoS citation database, the School's employees have also been publishing in other citation bases such as Scopus and PubMed. In 2017 8 scientific papers have been published by the School's employees, 34 in 2018 and 43 scientific papers in 2019 and 2020. The overall number of papers published by the School's employees in the Scopus citation database in 2021 amounted to 34.

All employees are regularly reminded to record data on scientific and professional publications, mentorships, and participations in congresses in the CROSBI database. Apart from the authors (employees) entering data by themselves, employees of the Central Dental Library also take care of entering data in the CROSBI. The necessity of having a complete bibliography in the CROSBI database for scientific and scientific-teaching promotions is a condition for the application.. Each year the data on published papers in the previous calendar year in the WoS CC and Scopus databases, along with the citation of those papers, are presented during a ceremonial session of the School Council. Despite efforts to avoid this, there is a difference in the data presented in the School's yearly reports on the scientific productivity and in the Analytic supplement to Self-analysis (MOZVAG) which is based on the CROSBI database. This is due to mostly inadequate entering of the data into this database, which emphasises the need for a more detailed and comprehensive analysis, which the School performs every year for the purpose of its own yearly reports.

Papers are published in the leading scientific journals in the field of dental medicine and medicine, which include, among others: Journal of Dental Research, Caries Research, Journal of Endodontics, Journal of Oral Rehabilitation, PLoS One, International Endodontic Journal, Clinical Oral Investigations, Dental

Materials, Paediatrics, Molecules, Journal of Adhesive Dentistry, Operative Dentistry, Journal of Clinical Oncology, Annals of Oncology, Circulation, European Heart Journal, European Journal of Nuclear Medicine and Molecular Imaging.

See Analytic supplement to Self-analysis Table 5.1.a Bibliography (in the last 5 years)

#### 5.1.2.

Higher education institution has efficient procedures of encouraging scientific publishing of high quality.

The School encourages scientists to publish in journals with the highest impact factors from the field of dental medicine and medicine on several levels. Each year the School rewards the employees in the category assistants/postdoctoral researchers and the category of scientific-teaching titles at the ceremonial session of the School Council on the occasion of the Day of St. Apollonia for the publication in journals with the high reception factor. The first authors of papers ranked according to quartiles of journals in which the papers were published in the previous calendar year are awarded. Criteria for the election of the most successful scientific paper (V#5) in the previous year were made for that purpose.

In order to enable scientific productivity, the School continually acquires contemporary scientific equipment which facilitates research, which is a precondition for publishing in high-quality journals.

In collaboration with the Croatian Dental society, the School has been publishing the journal Acta Stomatologica Croatica at the Croatian Physicians Association since 1966, which creates the space for enabling the publishing of scientific findings in the field of dental medicine. The journal is published in two languages in printed and electronic form, and it is indexed in Chemical Abstracts, DOAJ, EBSCO, SCOPUS, EMBASE, PubMed, PubMed Central (PMC) and ESCI. Along with the national and international editorial board, a strict reviewing procedure guarantee the quality of papers. The journal's editor-in-chief is Professor Hrvoje Brkić, PhD, and the editorial board is composed of eminent national and international scientists from the field of dental medicine. Ranking in 2020: SCImago/Clarivate 0.391, Q3 (V#6).

#### 5.1.3.

Higher education institution records data on publications (indexation, citation, h-index, if applicable)

At the beginning of the calendar year the School carries out the analysis of scientific productivity in the previous year, and the results are presented at the Reporting session of the School Council. Papers are classified according to citation databases of the journal they were published in WoS CC and Scopus, according to quartiles and impact factors. The number of citations of papers published in the same period is also recorded (V#1 to V#4). The results are presented in the Dean's Annual Report and at the ceremonial session of the School Council (V#7 to V#9).

#### 5.1.4.

Scientific activity of the higher education institution is visible from the dissertations. During the previous period, since 2015, 116 dissertations were defended at the School, 12 of which were defended in English (V#10). The number of defended dissertations has risen with the number of students enrolled in the doctoral study, and it amounted to 23 in 2021. Taking into consideration the fact that the precondition for the defence of the dissertation (V#11) is 144 ECTS points in scientific productivity, which implies publishing papers in scientific journals with an international review, scientific activity in that way becomes internationally verified.

#### 5.1.5.

Teachers and associates of the higher education institution actively promote scientific/artistic achievements in national and international congresses.

Teachers and associates of the School have in the previous period participated in numerous international scientific and professional conferences as invited lecturers or presenters of oral or poster presentations, and in the organising committee of some of them. It is visible from the CROSBI database that, since the beginning of 2015 until February 2022, the School's employees have published 528 Abstracts in journals and Abstract books from such events (V#12). Professor Hrvoje Jurić, PhD, organised the congress European Organisation for Caries Research in Zagreb in 2020 which was held online because of the epidemiological situation (V#13). Professor Hrvoje Brkić, PhD, as the chairman of the association International Organisation for Forensic Odontostomatology is the organiser of a triennial I.O.F.O.S Congress of Forensic Odontostomatology which was supposed to be held in Dubrovnik in December 2020 but was postponed until the epidemiological situation improves. In December 2020 Professor Hrvoje Brkić, PhD, has organised an online symposium Forensic Odontology before and during the Covid-19 pandemic under the International organisation for forensic odonto-stomatology (V#14). Out of the numerous domestic congresses and symposia which the School's employees have organised and participated in, the one that stands out is the International Congress of the School of Dental Medicine which is held every year with the participation of numerous lecturers from abroad, along with eminent national experts and which is presided over the Dean, Professor Zrinka Tarle, PhD. There is also the Congress of the Department of Endodontics and Restorative Dentistry, the Congress of the Croatian Society of Dental Implantology, the Congress of the Croatian Society for Paediatric and Preventive Dentistry. The Aesthetic Dental Moment Congress of the Croatian Society for Aesthetic Dental Medicine, which has been held in Zadar for the last 11 years, is organised by the School's employees: Assistant Professor Joško Viskić, PhD, as the chairman, Professor Nikša Dulčić, PhD, as the member of the organising Board, and Professor Amir Ćatić, PhD, as the chairman of the scientific Board.

## 5.2. Higher education institution proves the social relevance of its scientific, professional, and artistic research and knowledge transfer

#### 5.2.1.

Higher education institution monitors the needs of the society and the labour market and takes them into consideration when planning its research activities.

The School monitors the needs of the society and the labour market and plans its research activities according to them. Scientific projects are aimed at the development of new bioactive materials which would reduce the need for frequent change of fillings and the development of secondary caries which ultimately results in preserving a natural dentition at a very advanced age. Also, studying the temporomandibular disorder, oral cancer, periodontal diseases, and preventive procedures in paedodontics is the centre of interest of the public health activity because knowledge gained in these areas can contribute to general health and well-being. The labour market in the Republic of Croatia and Europe needs highly educated and capable doctors of dental medicine who possess not only professional knowledge but also scientific-research skills and critical thinking. With its curriculum the PGDS-DM educates staff who can be employed in research laboratories, institutes and universities in the Republic of Croatia, but all around Europe and the world as well.

#### 5.2.2.

Higher education institution has an efficient system of research support and knowledge and technology transfer.

The School supports research and knowledge and technology transfer through institutional support in administrative and personnel sense. Such support has resulted in 11 projects financed by the Croatian Science Foundation and two projects financed by the European Commission, and in 121 scientific project proposals financed through short-term fundings by the University in the period from 2017 to the present day. The project "Biodegradable Implants for Bone Tissue Engineering" (V#15) financed from the European Structural and Investment Fund within the Call for "Increasing the development of new products and services arising from R&D activities – Phase II", with the School being a public partner. The goal of the project is the development of a new product individualised biodegradable augmentation nets (IBAN) and based on the afore-mentioned the establishment of the production and commercialisation of newly developed products in Croatian companies. Considering the growing need of the society for the implant treatment the final product is expected to find its place on the market, not only Croatian but the global market as well. A significant advantage of individualised bioactive implants is a reduced invasiveness of the procedure, making it quicker, simpler, painless, and financially more acceptable for the patient.

The project applicants are private companies TOPOMATIKA d.o.o. and IZIT d.o.o., and project leaders at the School are Professor Amir Ćatić, PhD, and Associate Professor Dragana Gabrić, PhD. The implementation of the project contributes to the strengthening of the research and innovative capacity of the School and enables growth and development and long-term sustainability of business activity to the applicants and companies from the private sector, as well as the strengthening of the ability of manufacturing a high added value product in the Republic of Croatia. The project has a high potential of internationalisation and strengthening the position of the School in the global scientific environment, and positioning in the global value chain and targeted markets to Croatian companies. The subject of the research, i.e., the anticipated research results present the application of new knowledge and skills for the development of advanced products and services, and the products resulting from this IRI project represent products which meet the high requirements of the healthcare market.

See Analytic supplement to Self-analysis Table 5.3. Projects in the last 5 years

#### 5.2.3.

Teachers and associates participate in activities of scientific, artistic, and professional associations.

The School's teachers and associates are active in numerous professional and scientific associations where they are not only members, but also have leading roles. Professor Hrvoje Brkić, PhD, was elected president of the International Organisation for Forensic Odontostomatology at its congress in 2017 in Leuven (V#14). Professor Zrinka Tarle, PhD, has carried out numerous duties in the International Association for Dental Research (IADR), the leading world scientific organisation in dental medicine (V#16). Professor Zrinka Tarle, PhD, has also been awarded for outstanding contribution to CED-IADR as president and member of the Board in the period between 2008 and 2016. Professor Ivan Alajbeg, PhD, has also been rewarded for his contribution in the work of the congress CED-IADR/NOF Oral Health Research Congress as the member of the Board in the period from 2016 to 2019. Professor Zrinka Tarle, PhD, was a Board Member in the Academy of Operative Dentistry, European section, a European umbrella organisation of restorative dental medicine. Professor Marin Vodanović, PhD, is president of the International Association for Paleodontology. Professor Robert Trotić, PhD, was elected the next president of the European Federation of Audiology Societies (EFAS) on 21 May 2021 at the EFAS Congress in Oldenburg (Germany). Professor Zrinka Tarle, PhD, serves as Secretary/Treasurer in PER-IADR and is a member of the Management Committee. Professor Ivana Miletić, PhD, is member of the Minimum Intervention Dentistry Advisory Board which was founded in 2007 and is in charge of the development and establishment of the Minimum Intervention Treatment Protocol in Dental Dentistry. The result of the Board's work are several symposia at the leading dental conferences around the world and published articles in scientific journals (V#17). Professor Hrvoje Brkić, PhD, is full member of the Croatian Academy of Medical Sciences who was elected president of the Dental Sciences Department in the period from 2020 to 2024. Numerous professional and scientific associations are based at the School, with the School's employees as their presidents (V#18):

Croatian Dental Society at the Croatian Physicians Association - Professor Hrvoje Jurić, PhD

Croatian Society of Oral Surgery at the Croatian Physicians Association - Professor Irina Filipović Zore, PhD

Croatian Society of Periodontology at the Croatian Physicians Association – Associate Professor Darko Božić, PhD

Croatian Society of Oral Medicine and Pathology at the Croatian Physicians Association – Associate Professor Vlaho Brailo, PhD

Croatian Society of Orthodontics - Professor Senka Meštrović, PhD

Croatian Society of Dental Implantology at the Croatian Physicians Association – Professor Darko Macan, PhD

Croatian Society of Paediatric and Preventive Dentistry at the Croatian Physicians Association - Professor Kristina Goršeta, PhD

Croatian Society for Minimum Intervention Dentistry at the Croatian Physicians Association - Professor Ivana Miletić, PhD

Croatian Society for Hospital Dentistry/Special Care Dentistry at the Croatian Physicians Association - Professor Željko Verzak, PhD

Croatian Endodontic Society - Professor Ivica Anić, PhD

Croatian Society for Aesthetic Dental Medicine – Assistant Professor Joško Viskić, PhD

Croatian Society of Gastroenterology - Professor Neven Ljubičić, PhD

Croatian Society of Audiology and Phoniatrics - Professor Robert Trotić, PhD.

The School's teachers are leaders of eight referral centres (**V#19**) of the Ministry of Health of the Republic of Croatia at the Department of Dental Medicine of the University Hospital Centre Zagreb.

## 5.3. Remarkable scientific/artistic and professional achievements of the higher education institution are recognised both nationally and internationally

#### 5.3.1.

Teachers, associates, and professional personnel are holders of university, national and international awards and get recognition for their scientific/artistic/professional achievements.

The School employees are winners of numerous awards for their scientific and professional achievements. In 2016 the Board for the Croatian National Science Award decided to award the State Life Science Award to Academician Vida Demarin. Same year Professor Mirna Situm, PhD, was awarded for the popularisation of science (V#20). The State Life Science Award was also awarded to Academician Professor Vjekoslav Jerolimov, PhD (V#21). In 2020 Professor Asja Čelebić, PhD, was awarded the Andrija Štampar award which the University awards for scientific and professional achievements and the education of young colleagues in the field of biomedicine and health. The same award was given to Professor Ivana Miletić, PhD, in 2022 (V#22). Professor Ivana Miletić, PhD, is the winner of the State Science Award in 2020 (V#23). She was also given the Medal by the Croatian Physicians Association for the special contribution in nurturing the honourable tradition of the Croatian Medical Association, medical science and health in the Republic of Croatia. Professor Ivan Alajbeg, PhD, was given recognition for his contribution in the work of CED-IADR/NOF Oral Health Research Congress as member of the Board in the period between 2016 and 2019 (V#24). Associate Professor Dijana Zadravec, PhD, was awarded by the Egyptian Society of Radiology and Nuclear Medicine for the scientific contribution on 5 November 2021 (V#25). Irena Bagarić, prof. PE, has received acknowledgement at the Faculty of Kinesiology for special contribution in carrying out practicals on the mandatory course Kinesiology in education (V#26).

#### 5.3.2.

Higher education institution is the leader of an adequate number of scientific/artistic/professional projects (university, national, international).

In the period since 2015 11 projects of the Croatian Science Foundation have been carried out at the School: 6 were research projects, 3 postdoctoral researchers employment projects, 1 installation research project and 1 project of building Croatian professional terminology\_(V#27).

During that period, financing of short-term grants for the scientific-research work from the resources allocated by the University of Zagreb was approved at the School. In 2015 16 project proposals were financed (**V#28**), in 2016 20 project proposals (**V#29**), in 2017 23 project proposals (**V#30**), in 2018 22 project proposals (**V#31**), in 2019 26 project proposals (**V#32**), in 2020 23 project proposals (**V#33**), and in 2021 27 project proposals (**V#34**).

On 25 and 26 January 2018 Professor Predrag Knežević, a maxillofacial surgeon from the Clinical Hospital Dubrava held an international meeting of European experts for cleft palate through the COST project, sponsored by the EU. Representatives from 22 European countries, experts dealing with the treatment of persons with cleft lip and palate have participated in the project. Experiences from the field of maxillofacial surgery, orthodontics, speech therapy and psychological approach to treatment were exchanged at the meeting, and the results will surely contribute to better patient care and the strengthening of multidisciplinarity in this area.

The School is also a partner in projects led by the industrial factor (V#15) and the Croatian Association for HIV and viral hepatitis (CAHIV). The project Preserving public health through the popularisation of STEM was financed by the European Social Fund within the programme "Strengthening the capacity of civil society organisations to promote STEM", and after the education the School's students hold workshops in primary and secondary schools in urban and rural Croatia under the mentorship of teachers (V#35).

#### 5.3.3.

Teachers, associates, and experts participate in significant numbers in invited lectures at national and international conferences.

The dean reports on the employees' participation in numerous invited lectures on the work sessions of the School Council which is recorded in the Minutes of sessions available on the School's website. In the period between 2016 and today, the School's employees have given over 220 invited lectures at international and national gatherings, mostly in person until the pandemic and after that virtually for the most part (V#36).

Professor Hrvoje Brkić, PhD, was in 2021 elected visiting professor at the University of Lisbon (V#37). Professor Asja Čelebić, PhD, was elected visiting professor at the Faculty of Dentistry Ss. Cyril and Methodius University in Skopje (UKIM) (V#38).

#### 5.3.4.

Teachers and associates are members of scientific/artistic/professional conference committees, editorial boards of journals.

Editor-in-chief of the journal Acta Stomatologica Croatica, which has been publishing by the School since 1966, is Professor Hrvoje Brkić, PhD (V#39), and a large number of the School's employees are members of the editorial board along with eminent international experts (V#40). Professor Marin Vodanović, PhD is the founder and editor-in-chief of the journal Bulletin of the International Association for Paleodontology (V#41). Also, in the previous period the School's employees have been guest editors in a large number of journals: Jelena Dumančić and Božana Lončar (guest editors of the special issue of the journal Materials "Dental Education" and the special issue of the Dentistry Journal Topical Collection "Feature Papers in Dental Education" (V#42, V#43), Matej Par (guest editor of the special issue of the journal Materials "Bioactive Dental Materials" IF 3,6) (V#44), Danijela Marović (guest editor of the special issue of the journal Materials "Dental Bulk-Fill Composite Resins") (V#45), Ivana Miletić (guest editor of the special issue of the journal Materials "Bioactive Materials in Dentistry" IF 3,6) (V#46).

In the organisation or co-organisation of a large number of symposia, which from October 2016 to February 2022 amounted to 20 symposia and 19 congresses, the School's employees are not only members of the organisational and scientific Boards, but also their chairmen.

Also, the School's employees participated in the work of scientific committees of numerous conferences: Professor Zrinka Tarle, PhD has participated in the work of the scientific committee of the CED-IADR/NOF Oral Health Research Congress in Madrid from 19 to 21 September 2019 (V#47) where Professor Ivan Alajbeg, PhD, has received recognition for his work in scientific committees of previous congresses (V#24). Assistant Professor Marija Buljan, PhD, was a member of the scientific committee and invited lecturer at the meeting "Melanoma Days, CSEEMEG Meeting (Central, South and Eastern European Melanoma Expert Group) (V#48).

The School's employees also participate in drawing up guidelines in professional associations, for example, Associate Professor Darko Božić, PhD, has participated in the XVI. European Workshop on Periodontology: Evidence-based Guidelines for Periodontal Therapy Working Group II:-Clinical Guidelines for the treatment of Periodontitis Stage III Access Flaps, Pocket elimination surgery, Anti-microbial adjuncts (V#49). Academician Mirna Šitum has organised a scientific meeting Central and South-East European Melanoma Expert Group Regional Meeting on 26 November 2020 (V#50).

See Analytic supplement to Self-analysis Table 5.4. Work in conference organisational committees in the last 5 years and Table 5.5. Editorship in journals in the last 5 years

## 5.4. Scientific/artistic activity of the higher education institution is sustainable and developmental

#### 5.4.1.

Development strategy of the scientific/artistic activity is compatible with the vision of the development of the higher education institution.

Strategic programme of scientific research for the period 2015-2019 (V#51) is compatible with the vision of the development and the strategic goals of the School expressed in the document "Self-Evaluation, 1 October 2009 – 1 October 2014", which emphasises knowledge transfer, creating the centre of scientific-research excellence in the field of dental medicine and dental materials, scientific internationalisation, collaboration with pharmaceutical companies on the discovery of new medicine and materials in dental medicine, ensuring material and space conditions for the optimal work of scientific activity, and lifelong education of doctors of dental medicine (V#52).

#### 5.4.2.

Scientific/artistic activities of the higher education institution represent the realisation of the strategic programme.

Science-related activities at the School are aimed at fulfilling the vision and mission of the institution. Transfer of knowledge and technologies is visible from the support to employees in the application of projects in collaboration with the industrial sector (the project Biodegradable Implants for Bone Tissue Engineering). Internationalisation is encouraged through the collaboration of the School's employees with some of the best universities and stay in their laboratories (University of Zurich, Ludwig Maximilian University of Munich and Charite University Hospital Berlin) which has resulted in numerous publications in co-authorship with international scientists. Research of new materials, especially the ones with a biodegradable component, is done through two projects financed by the Croatian Science Foundation (Biomimetic Intelligent Composite Materials and Research and Development of New Micro- and Nanostructured Bioactive Materials). The School tries to provide material and space conditions for optimal work in the scientific activity through a continuous acquisition of equipment which is currently placed in the facilities of the Department of Dental Anthropology, and the purchase of the new space within the School's building will enable placing all the equipment in one place.

#### 5.4.3.

Higher education institution has access to adequate resources for scientific/artistic activities.

Except for the existing large personnel potential and the employment of young scientists in the previous years, the School makes a lot of effort to acquire scientific equipment needed for research in the field of dental medicine. The School tends to equip the modern laboratory for the testing of hard dental tissues and dental materials. The list of scientific equipment, its location and responsible persons can be found on the website of the PGDS-DM (V#53).

#### 5.4.4.

Higher education institution recognises and rewards scientific/ artistic achievements of its employees.

Each year at the ceremonial session of the School Council, the School gives awards to the most successful employees in the field of scientific productivity in the category young scientist – assistant/postdoctoral researcher and employees from the scientific-teaching titles (V#54 to V#59). Also, the School nominates its most outstanding employees for the Andrija Štampar university award which is awarded to individuals for special contribution in the biomedical field. Criteria for ranking employees and the support of the institution for the University award were made for that purpose (V#60).

#### 5.4.5.

Higher education institution is continually improving its scientific/artistic activity through financing, increasing human resources, adjustment of space and investment in the necessary equipment, acquiring adequate literature, support for the dissemination of results and making doctoral dissertations.

The School is making an effort to increase financial support and resources for scientific activity. Except for allocating financial grants of the University to research groups according to the quality of applied projects and previous scientific productivity, the School encourages its employees and gives its Institutional Approval for the application for projects by the Croatian Science Foundation and the European Funds. In order to facilitate financing of scientific activity within the doctoral study, the School's management has made a decision on research support in the amount of 10% of the total of the paid tuition fee (V#61). The existing space in the Department of Dental Anthropology was temporarily converted into a scientific laboratory for research of hard dental tissues and dental materials until the completion of the renovation of the laboratory within the newly acquired space of the School. Scientific equipment is being continually acquired through the School's resources, Croatian Science Foundation projects at the School and university grants for scientific research (V#53). Scientific literature is available through the Central Dental Library, and each year a subscription on selected printed editions of scientific publications and on some electronic versions of journals is being renewed. When selecting the journals, attention is paid that all fields of scientific interest of dental medicine are represented in a certain number of journals.

The School supports the dissemination of results of its employees' research by enabling paid absence from work for the purpose of visiting conferences and by using resources earned from the continuing education courses of doctors of dental medicine for travel expenses and registration fees.

The School supports the research within doctoral study by financial support in the amount of 10% of the tuition fee. All postdoctoral researchers can apply for such support through a form (V#62) available on the website of the doctoral study. The Board for Postgraduate Studies – Doctoral Study considers the application at its regular sessions.

## 5.5. Scientific/artistic and professional activity and achievements of the higher education institution are improving the teaching process

#### 5.5.1.

Space and equipment for scientific/artistic research and professional activity are used in undergraduate, graduate, and postgraduate teaching.

Students of all levels of study use all the space resources and equipment of the School, whether through scientific or professional work. Students of the IUGUS-DM participate in scientific activities guided by mentors, mostly within the Rector's Award competition, with the course *Introduction to scientific work* at the fifth and sixth year of the study additionally training them in the scientific sense. In their research they use equipment which is available at the School and in collaborative institutions. The PGDS-DM programme relies largely on the scientific-research work which is carried out with the School's resources. The School's resources are used for the professional activity of stakeholders on all levels of education. At the IUGUS-DM, space and equipment are adapted primarily to professional education, and students use it additionally through professional sections as part of extracurricular activities. PGSSs from the field of dental medicine, the only of its kind in the Republic of Croatia, are carried out in the School's facilities and with its equipment.

#### 5.5.2.

Students of undergraduate, graduate, and postgraduate studies are included in scientific/artistic/professional projects of the higher education institution.

The School tries to include students of graduate and postgraduate studies in most scientific and professional projects. Students of IUGUS-DM are included in scientific projects when doing research and writing papers for the Rector's Award and for competitions organised by different companies which support the School's work (the Colgate competition for the best scientific paper). Students of PGDS-DM are mostly collaborators on scientific projects financed by the Croatian Science Foundation (for example, Ema Vrbanović, Gabrijela Kapetanović Petričević, Marko Zlendić, Ivan Šalinović and others) and they contribute to fulfilling goals and project proposals financed by the University with their scientific-research work, which is visible from the papers published in collaboration with students. Students of graduate studies are active stakeholders of the project Preservation of public health through the popularisation of STEM (V#35), the Oral cancer project, the Geronto project, etc. They are also included in the project of popularisation of science through the Baltazar association, in which they represented the School on the 10th Science Picnic event which was held on 24 and 25 September 2021 in Gornja Stubica (V#63).

#### 5.5.3.

Teaching at postgraduate university studies and doctoral dissertations reflect scientific/ artistic research, professional activity, and achievements of the higher education institution.

Scientific research activity and the topics of doctoral dissertations at the School are closely related with teaching activities at all levels of the study.

Full-time students of PGDS-DM are also associates on projects of the Croatian Science Foundation at the School and are included in the teaching process at the IUGUS-DM. Other students are also included in the work of projects of mentors-employees of the School, whether with the Croatian Science Foundation or University grants. When applying the topic of the doctoral dissertation, except for topics closely related with dentistry, with general medicine topics, one of the preconditions is the correlation of the topic with dental medicine. Involving the students of the IUGUS-DM in the scientific-research activity at the School greatly helps the teaching process and the acquisition of knowledge and critical scientific thinking of the profession. Students of the School have been organising the Virtual World Congress of Dental Students since 2010 (V#64). That is the first such project in the world which is held online, and the lecturers, active and passive participants enter a virtual room, listen to lectures, and active participants compete in a scientific programme by presenting their studies. Students and doctors of dental medicine from all over the world participate in the congress and the experience from that project has helped teachers and students of the School to switch to online classes more easily during the pandemic in 2020. The students of the School also organise a Congress of Students of Dental Medicine in Zagreb. The Congress was held three times (in 2017, 2018 and 2019), while in 2020 and 2021 it was not held due to pandemic. Students of dental medicine from the studies in Croatia, but from other countries as well, such as Slovenia, Bosnia and Herzegovina and Serbia, participate in the congress (V#65).

Students are also encouraged to participate in scientific work through the Rector's Award competition (**V#66**), as well through the graduation theses that could be in the form of scientific work.

#### LIST OF EVIDENCE AND LINKS

### O# "OUTCOMES OF THE PREVIOUS EVALUATION AND ACCOMPLISHMENTS REVIEW AFTER THE IMPLEMENTATION OF THE PROCEDURE IN 2015"

- Strategic Programme of Scientific Research of the School of Dental Medicine University of Zagreb 2015-2019
- 2. Dean's Work Programme 2018-2021
- 3. Dean's Work Programme 2021-2024
- 4. Dean's Work Report 2018/2019
- 5. Dean's Work Report 2019/2020
- 6. Dean's Work Report 2020/2021
- 7. Report of the Board for Postgraduate Studies Doctoral Study 2019/2020
- 8. Report of the Board for Postgraduate Studies Doctoral Study 2020/2021
- 9. Report of the Board for Science 2019/2020
- 10. Report of the Board for Science 2020/2021
- 11. Report of the Board for Postgraduate Studies Specialist Study 2020/2021
- 12. Report of the Board for Lecturer Selection 2018/2019
- 13. Report of the Board for Lecturer Selection 2019/2020
- 14. Report of the Board for Lecturer Selection 2020/2021
- 15. Report of the Board for Teaching and Students 2018/2019
- 16. Report of the Board for Teaching and Students 2019/2020
- 17. Report of the Board for Teaching and Students 2020/2021
- 18. Report of the Board for Quality Assurance 2019/2020
- 19. Report of the Board for Quality Assurance 2020/2021
- 20. Report on Internal Evaluation of Quality Assurance System of the School of Dental Medicine 2021
- 21. Report on SWOT Analysis of the School of Dental Medicine 2021
- 22. Project Biodegradable Implants for Bone Tissue Engineering https://topomatika.hr/projekt-biorazgradivi\_implantati\_za\_inzenjerstvo\_kostanog\_tkiva/
- 23. Centre for Research, Development and Technology Transfer http://cirtt.unizg.hr/
- 24. Code of Ethics of the University of Zagreb
- 25. Statute of the University of Zagreb
- 26. Bylaws of the School of Dental Medicine
- 27. Labour Act
- 28. Work Regulations of the School of Dental Medicine
- 29. Decision on Appointment of the Board for Quality Assurance 2018/2021
- 30. Decision on Appointment of the Board for Quality Assurance 2021/2024
- 31. ASHE Research on employability of students graduated in the academic year 2018/2019
- 32. Results of the Research on employability of alumni of the School of Dental Medicine 2014/2015 2020/2021

- 33. Research on the teaching workload of students on IUGUS-DM 2020
- 34. Decision on amendments of the study programme on IUGUS-DM 2021
- 35. List of new elective courses 2015-2021
- 36. List of activities on the course "Project" 2019/2020 2021/2022
- 37. Implementation plan for the course Occlusion
- 38. Implementation plan for the course Fixed prosthodontics II
- 39. Implementation plan for the course Removable prosthodontics II
- 40. Implementation plan for the course Preclinical restorative dental medicine
- 41. International Summer School https://www.sfzg.unizg.hr/projekti/ medunarodna\_ljetna\_skola\_methods\_in\_dental\_and\_orofacial\_tissues\_research
- 42. List of mentors for the "Practicals" outside the School of Dental Medicine in the academic year 2021/2022
- 43. Example of Collaboration Agreement for the "Practicals"
- 44. Dental Students' Association https://www.usdm.hr/geronto-projekt/
- 45. Dental Students' Association https://www.usdm.hr/zubic/
- 46. Survey questionnaire for students who have completed IUGUS-DM
- 47. Regulations on the study at the School of Dental Medicine (in Croatian)
- 48. Regulations on the study at the School of Dental Medicine (in English)
- 49. Programme of the Academic Teaching Excellence workshop
- 50. Newsletter of the School of Dental Medicine 09/2015
- 51. Newsletter of the School of Dental Medicine 17/2018
- 52. Collective Agreement for Science and Higher Education
- 53. Regulation on Job Titles and Coefficients of Job Complexity in Public Services
- 54. Project Programme for the Objectivization of Spatial Needs of the School of Dental Medicine

## I# "I. INTERNAL QUALITY ASSURANCE AND THE SOCIAL ROLE OF THE HIGHER EDUCATION INSTITUTION (ESG 1.1., ESG1.7., ESG 1.8)"

- 1. Act on Scientific Activity and Higher Education
- 2. Act on Quality Assurance in Science and Higher Education
- 3. ESG standards
- 4. Quality Assurance Policy of the School of Dental Medicine University of Zagreb 2019
- 5. School of Dental Medicine University of Zagreb Vision and Mission https://www.sfzg.unizg. hr/o\_fakultetu/vizija\_i\_misija
- 6. Strategic Programme of Scientific Research of the School of Dental Medicine for the period 2015-2019
- 7. Bylaws of the School of Dental Medicine University of Zagreb
- 8. Regulations on Quality Assurance of the School of Dental Medicine University of Zagreb
- 9. Regulations on the study at the School of Dental Medicine University of Zagreb
- 10. Regulations on Postgraduate Specialist Studies of the School of Dental Medicine University of Zagreb
- 11. Regulations on the Postgraduate University Study for Acquiring the Academic Title of the Doctor of Science of the School of Dental Medicine University of Zagreb

- 12. Regulations on the Postgraduate University Study for Acquiring the Academic Title of the Doctor of Science of the School of Dental Medicine University of Zagreb 2021
- 13. Regulations on Quality Assurance System University of Zagreb
- 14. List of members of the School Council 2018-2021
- 15. Decision on Appointment of Members of the Quality Assurance Board 2018-2021
- 16. Decision on Appointment of Members of the Quality Assurance Board 2021-2024
- 17. Report of the Quality Assurance Board 2019/2020
- 18. Report of the Quality Assurance Board 2020/2021
- 19. Annual Report on Quality Assurance at the School of Dental Medicine 2015/2016
- 20. Annual Report on Quality Assurance at the School of Dental Medicine 2016/2017
- 21. Annual Report on Quality Assurance at the School of Dental Medicine 2017/2018
- 22. Annual Report on Quality Assurance at the School of Dental Medicine 2018/2019
- 23. Annual Report on Quality Assurance at the School of Dental Medicine 2019/2020
- 24. Annual Report on Quality Assurance at the School of Dental Medicine 2020/2021
- 25. School of Dental Medicine University of Zagreb Quality System https://www.sfzg.unizg. hr/o\_fakultetu/sustav\_kvalitete
- 26. Newsletter of the School of Dental Medicine https://www.sfzg.unizg.hr/promidzba/glasilo\_sfzg
- 27. Dean's Work Programme 2018-2021
- 28. Dean's Work Programme 2021-2024
- 29. Report on SWOT Analysis of the School of Dental Medicine 2021
- 30. Dean's Work Report 2018/2019
- 31. **Dean's Work Report 2019/2020**
- 32. Dean's Work Report 2020/2021
- 33. Report on Internal Evaluation of Quality Assurance System of the School of Dental Medicine 2021
- 34. Quality Assurance Activity Plan at the School of Dental Medicine 2015/2016
- 35. Quality Assurance Activity Plan at the School of Dental Medicine 2016/2017
- 36. Quality Assurance Activity Plan at the School of Dental Medicine 2017/2018
- 37. Quality Assurance Activity Plan at the School of Dental Medicine 2018/2019
- 38. Quality Assurance Activity Plan at the School of Dental Medicine 2019/2020
- 39. Quality Assurance Activity Plan at the School of Dental Medicine 2020/2021
- 40. Report on the results of an online survey on the assessment of the quality of teaching and teachers on IUGUS-DM in the summer semester of the academic year 2019/2020
- 41. Report on the results of an online survey on the assessment of the quality of teaching and teachers on IUGUS-DM in the winter semester of the academic year 2020/2021
- 42. Report on the results of an online survey on the assessment of the quality of teaching and teachers on IUGUS-DM in the summer semester of the academic year 2020/2021
- 43. Report on the results of an online survey on the assessment of the quality of teaching and teachers on the course Anatomy
- 44. Report on the results of an online survey on the assessment of the quality of teaching and teachers on the course Occlusion
- 45. Report on the results of an online survey on the assessment of the quality of teaching and teachers on the course Temporomandibular disorders

- 46. Survey for the evaluation of the study as a whole https://www.sfzg.unizg.hr/o\_fakultetu/kontrola\_kvalitete/anketa\_za\_vrednovanje\_studija\_u\_cjelini
- 47. Report on the results of an online survey on the assessment of the quality of teaching and teachers on PGDS-DM
- 48. Report on the results of an online survey on the assessment of the quality of teaching and teachers on PGSS and PGDS-DM
- 49. Annual Reports of Quality Assurance System of the School of Dental Medicine https://www.sfzg.unizg.hr/o\_fakultetu/kontrola\_kvalitete/godisnja\_izvjesca
- 50. Minutes of the Meeting of the sixth-year students with employers 2021
- 51. Decision on amendments of the study programme on IUGUS-DM 2021
- 52. Regulations on the Organisation of Work Positions at the School of Dental Medicine University of Zagreb
- 53. Human Resources Management Plan at the School of Dental Medicine 2019
- 54. Human Resources Management Plan at the School of Dental Medicine 2020
- 55. Human Resources Management Plan at the School of Dental Medicine 2021
- 56. Human Resources Management Plan at the School of Dental Medicine 2022
- 57. Form of the Annual report for teaching associates
- 58. Decisions of the Committee on the best scientific work 2016-2021
- 59. Expert Committee Report on Re-Accreditation of the School of Dental Medicine 2015
- 60. Assessment of the Quality of Higher Education Institution Re-Accreditation of the School of Dental Medicine 2015
- 61. Confirmation of the Ministry of Science and Education for performing business activity at the School of Dental Medicine from 2015
- 62. Report of the Committee for Internal Evaluation of Quality Assurance System of the School of Dental Medicine from 2016
- 63. Labour Act
- 64. Code of Ethics of the University of Zagreb
- 65. Statute of the University of Zagreb
- 66. Bylaws of the School of Dental Medicine University of Zagreb
- 67. Work Regulations of the School of Dental Medicine
- 68. Regulation on the procedure of appointment of a confidential person and internal reporting of irregularities
- 69. Act on Personal Data Protection
- 70. General Data Protection Regulation of the EU
- 71. Regulations on studying on undergraduate and graduate studies of the University of Zagreb
- 72. Warnings on the employment obligation
- 73. Ethics Board Report 2015/2016
- 74. Ethics Board Report 2016/2017
- 75. Ethics Board Report 2017/2018
- 76. Ethics Board Report 2018/2019
- 77. Ethics Board Report 2019/2020
- 78. Ethics Board Report 2020/2021
- 79. Turnitin https://www.sfzg.unizg.hr/intranet/studenti/turnitin

- 80. Authenticity Verification Report https://drive.google.com/file/d/1yqxpQo0--M1ZDMaZbV-H2Uzv9z1qzbab/view
- 81. Act on the Right of Access to Information
- 82. School of Dental Medicine University of Zagreb https://www.sfzg.unizg.hr/
- 83. School of Dental Medicine University of Zagreb integrated study https://www.sfzg.unizg.hr/integrirani\_studij
- 84. School of Dental Medicine University of Zagreb specialist studies https://www.sfzg.unizg.hr/studiji/specijalisticki\_studiji
- 85. School of Dental Medicine University of Zagreb doctoral study https://sites.google.com/a/sfzg.hr/doktorski-studij-dentalna-medicina/home
- 86. School of Dental Medicine University of Zagreb lifelong education https://www.sfzg.unizg. hr/trajna izobrazba
- 87. School of Dental Medicine University of Zagreb integrated study in English https://www.sfzg.unizg.hr/en
- 88. School of Dental Medicine University of Zagreb doctoral study in English https://sites.google.com/sfzg.hr/doctoralstudydentalmedicine/home
- 89. University of Zagreb Fair http://smotra.unizg.hr/fileadmin/smotra2021/index.html
- 90. Vodić za studente 2021/2022
- 91. **Guide for students 2021/2022**
- 92. School of dental Medicine brochure
- 93. Records of the social role of the employees of the School of Dental Medicine 2015-2021
- 94. SRCE Register of Study Programmes https://hko.srce.hr/usp/pretrazivanje?naziv=Dent alna+medicina&\_vrsta=on&\_vr
- 95. Become a student (Postani student)
  https://www.postani-student.hr/Ucilista/Nositelji.aspx
- 96. Implementation plans years 1-6 on IUGUS-DM in Croatian 2021-2022
- 97. Implementation plans years 1-6 on IUGUS-DM in English 2021-2022
- 98. Order of Lectures for the academic year 2021/2022
- 99. School of Dental Medicine University of Zagreb international co-operation https://www.sfzg.unizg.hr/medunarodna suradnja
- 100. Oral health promotion https://www.vecernji.hr/lifestyle/promocija-oralnog-zdravlja-slijepih-i-slabovidnih-osoba-1222851
- 101. Dental Students' Association https://www.usdm.hr/
- 102. Student sections https://www.facebook.com/sfzgsekcije/
- 103. Dental Students' Association projects https://www.usdm.hr/projekti/
- 104. Croatian Employment Service https://burzarada.hzz.hr/Posloprimac\_RadnaMjesta.aspx?Aspx AutoDetectCookieSupport=1
- 105. Results of the Research on employability of alumni of the School of Dental Medicine 2014/2015 2020/2021

- 106. Project Biodegradable Implants for Bone Tissue Engineering https://topomatika.hr/projekt-biorazgradivi\_implantati\_za\_inzenjerstvo\_kostanog\_tkiva/
- 107. Dental Passport https://www.hzjz.hr/sluzba-javno-zdravstvo/zubna-putovnica-2/
- 108. Supervised toothbrushing https://www.hzjz.hr/sluzba-javno-zdravstvo/nadzirano-cetkanje-zubi-u-vrticima-i-skolama-3/
- 109. Oral Health project https://www.fdiworlddental.org/smile-grant-recipients-cambodia-and-croatia-deliver-safe-oral-healthcare-despite-challenges-covid
- 110. Geronto project https://www.usdm.hr/geronto-projekt/
- 111. Oral Cancer Week https://www.usdm.hr/oral-cancer-week/
- 112. Project for oral health promotion in blind and visually impaired persons https://www.sfzg.unizg.hr/projekti/projekt\_za\_promociju\_oralnog\_zdravlja\_slijepih\_i\_slabovidnih\_osoba
- 113. Public Health Committee https://www.usdm.hr/javnozdravstveni-odbor/
- 114. Ministry of Health of the Republic of Croatia working groups https://zdravlje.gov.hr/pristup-informacijama/savjetovanje-s-javnoscu/radne-skupine/3343
- 115. Science Picnic http://znanstvenipiknik.weebly.com/
- 116. Guide on the approach to blind and visually impaired persons 2018
- 117. ASHE letter for the Exemption of PGSS-DMT from the re-accreditation 2022
- 118. Booklet of continuing education courses at the School of Dental Medicine 2016
- 119. Booklet of continuing education courses at the School of Dental Medicine 2017
- 120. Booklet of continuing education courses at the School of Dental Medicine 2018
- 121. Booklet of continuing education courses at the School of Dental Medicine 2019
- 122. Booklet of continuing education courses at the School of Dental Medicine 2020
- 123. Booklet of continuing education courses at the School of Dental Medicine 2021
- 124. Teaching schedule for the course "Oral surgery" on PGSS-DI
- 125. Minutes of the XXV. Session of the Board for Postgraduate Study Specialist Study
- 126. Minutes of the XXVI. Session of the Board for Postgraduate Study Specialist Study
- 127. Minutes of the XXVII. Session of the Board for Postgraduate Study Specialist Study
- 128. Minutes of the XXVIII. Session of the Board for Postgraduate Study Specialist Study
- 129. Minutes of the XXX. Session of the School Council
- 130. Minutes of the XXXI. Session of the School Council
- 131. Decision of the Senate of the University of Zagreb for PGSS-DP
- 132. Results of an online survey on the quality of courses at the School of Dental Medicine 2020/2021

#### II# "II. STUDY PROGRAMMES (ESG1.2., ESG1.9.)"

- 1. Strategic Programme of Scientific Research of the School of Dental Medicine 2015-2019
- 2. Dean's Work Programme 2018-2021
- 3. Dean's Work Programme 2021-2024
- 4. Dental Medicine Development Strategy 2017-2025
- 5. Act on Scientific Activity and Higher Education
- 6. Regulations on studying on undergraduate and graduate studies University of Zagreb

- 7. Results of the Research on employability of alumni of the School of Dental Medicine 2014/2015 2020/2021
- 8. Implementation plans for courses on IUGUS-DM in the academic year 2021/2022 Croatian
- 9. Implementation plans for courses on IUGUS-DM in the academic year 2021/2022 English
- 10. Student Practicals Manual 2019/2020
- 11. Validity Study for PGSS-ERDM
- 12. Validity Study for PGSS-DP
- 13. Order of lectures for the academic year 2021/2022
- 14. School of Dental Medicine University of Zagreb Doctoral Study https://sites.google.com/a/sfzg.hr/doktorski-studij-dentalna-medicina/studijski-program?authuser=0
- 15. Research on teaching workload for students on IUGUS-DM 2020
- 16. Sample of Collaboration Agreement for the "Practicals"
- 17. Sample of a Sticker for collaborative dental offices for the "Practicals"
- 18. Application form for mentors from collaborative dental offices for the "Practicals"

#### III# "III. TEACHING PROCESS AND STUDENT SUPPORT (ESG 1.3., ESG 1.4., ESG 1.6.)"

- 1. School of Dental Medicine University of Zagreb Enrolment https://www.sfzg.unizg.hr/upisi
- 2. School of Dental Medicine University of Zagreb postgraduate studies https://www.sfzg.unizg.hr/poslijediplomska\_nastava
- 3. Guide for students 2021/2022
- 4. Become a student (Postani student) https://www.postani-student.hr/Ucilista/Default.aspx
- 5. Decision on the impossibility of transfer to IUGUS-DM 2018/2019-2020/2021
- 6. Criteria for enrolment in the first year of the IUGUS-DM in English https://www.sfzg.unizg.hr/en/admission
- 7. Conditions for the transfer to IUGUS-DM in English from a related study programme of another university in the EU https://www.sfzg.unizg.hr/en/integrated\_study/ study\_english?@=5txp#news\_279177
- 8. Conditions for the transfer to IUGUS-DM in English from the study programme of dental medicine of another university in the EU https://www.sfzg.unizg.hr/en/integrated\_study/study\_english?@=5txq#news\_279177
- 9. Regulations on University Postgraduate Study for Acquiring the Title of the Doctor of Science
- 10. Minutes of the XXXIV session of the School Council 2021
- 11. Competition for enrolment on PGDS-DM 2021/2022
- 12. Regulations on University Postgraduate Specialist Studies
- 13. Competition for enrolment on PGSS-DM
- 14. Competition for enrolment on PGSS-DI
- 15. School of Dental Medicine University of Zagreb Integrated Study in English the results of the entrance exam https://www.sfzg.unizg.hr/en/integrated\_study/study\_english
- 16. Decision on the approval of transfer from another study programme
- 17. Srednja.hr 2021 https://www.srednja.hr/faks/pogledajte-koje-su-fakultete-u-2021-upisali-maturanti-s-najboljim-prosjekom-ocjena/
- 18. Srednja.hr 2020 https://www.srednja.hr/faks/ provjerite-koje-se-fakultete-2020-upisali-maturanti-s-najboljim-ocjenama/

- 19. School of Dental Medicine University of Zagreb Integrated Study in English enrolment threshold https://www.sfzg.unizg.hr/en/integrated\_study/study\_english
- 20. School of Dental Medicine University of Zagreb Integrated Study in Croatian enrolment conditions https://www.sfzg.unizg.hr/integrirani\_studij/uvjeti\_upisa
- 21. Regulations on the Study (in Croatian)
- 22. Regulations on the Study (in English)
- 23. Decision on the recognition of exams IUGUS-DM (in Croatian)
- 24. School of Dental Medicine University of Zagreb Integrated Study in English information https://www.sfzg.unizg.hr/en/integrated\_study/information\_for\_international\_students
- 25. Decision on the recognition of exams IUGUS-DM (in English)
- 26. Act on Scientific Activity and Higher Education
- 27. School of Dental Medicine University of Zagreb documents https://www.sfzg.unizg. hr/o fakultetu/dokumenti
- 28. Order of Lectures 2021/2022
- 29. Implementation plans of courses on IUGUS-DM (in Croatian)
- 30. Kontrolnik 7th semester
- 31. Kontrolnik 8th semester
- 32. Kontrolnik 9th semester
- 33. Kontrolnik 10th semester
- 34. Kontrolnik 11th semester
- 35. Kontrolnik 12th semester
- 36. Implementation plans of courses on IUGUS-DM (in English)
- 37. Postgraduate Doctoral Study Programme
- 38. Student Passability Analysis 2014/2015 2018/2019
- 39. Example of the plan for collecting data on student progress on course level
- 40. Example of a Passability Report on course level
- 41. Form Dr. sc. 09 Annual Work Report
- 42. Dental Students' Association sections https://www.usdm.hr/studentske-sekcije/
- 43. Survey on the assessment of the quality of teaching and teachers on IUGUS-DM Eng 1
- 44. Survey on the assessment of the quality of teaching and teachers on IUGUS-DM Eng 2
- 45. International Summer School https://www.sfzg.unizg.hr/projekti/medunarodna\_ljetna\_skola\_methods\_in\_dental\_and\_orofacial\_tissues\_research
- 46. Course "Project" https://www.sfzg.unizg.hr/predmet/199602
- 47. Course "Project" teacher's form
- 48. Course "Project" agreement form
- 49. Surveys on the assessment of the quality of teaching and teachers on IUGUS-DM Cro 2019- 2022
- 50. Surveys on the assessment of the quality of teaching and teachers on PGSS 2020- 2022
- 51. Surveys on the assessment of the quality of teaching and teachers on PGDS-DM 2019- 2022
- 52. Instruction for making educational texts
- 53. Instruction for technical design and layout of works suggested for the university teaching literature

- 54. Publishing Committee https://www.sfzg.unizg.hr/intranet/studenti/povjerenstvo\_za\_izdavastvo
- 55. Analysis of mandatory literature at the School of Dental Medicine 2021
- 56. Example of communication with the student of IUGUS-DM in English
- 57. List of activities on the course "Project" 2019/2020 2021/2022
- 58. List of the Rector's Award winners 2016-2021
- 59. Survey for postdoctoral researchers 2019/2020
- 60. Survey for postdoctoral researchers 2020/2021
- 61. Minutes of the Meeting of the sixth-year students with employers 2021
- 62. Study on curricular and extracurricular aspects of studying
- 63. International co-operation news https://www.sfzg.unizg.hr/medunarodna\_suradnja#news\_11116
- 64. Erasmusiraj se! https://www.sfzg.unizg.hr/medunarodna\_suradnja?@=5w8g
- 65. Erasmus agreements https://www.sfzg.unizg.hr/\_download/repository/Popis\_Erasmus\_ugovora\_2022.pdf
- 66. Records of student Erasmus mobility 2014/2015-2021/2022
- 67. Erasmus+ agreements http://www.unizg.hr/fileadmin/rektorat/Suradnja/Medunarodna\_razmjena/Studenata/Erasmus\_SMS/2020\_21/SFZG\_Eplus\_exchanges\_SMS\_2020\_21.pdf
- 68. Decision of the University of Zagreb on the number of Erasmus+ agreements
- 69. Erasmus+ agreements of the School of Dental Medicine
- 70. Collaboration agreement Tufts University School of Dental Medicine
- 71. Collaboration agreement Brescia University
- 72. Collaboration agreement Ljubljana University
- 73. DAAD scholarships https://www.sfzg.unizg.hr/medunarodna\_suradnja?@=5w52
- 74. DAAD scholarships notification https://www.sfzg.unizg.hr/obavijesti?@=5sop
- 75. EDSA Old teams https://www.edsaweb.org/old-teams
- 76. EDSA https://www.edsaweb.org/meet-the-team
- 77. International co-operation news https://www.sfzg.unizg.hr/medunarodna\_suradnja#news\_11116
- 78. Criteria for the selection of students for Erasmus+ https://www.sfzg.unizg.hr/\_download/repository/KRITERIJI ZA ODABIR STUDENATA ZA PROGRAM ERASMUS.pdf
- 79. Example of a Learning agreement
- 80. Example of an Erasmus decision
- 81. Survey on Erasmus institutional support
- 82. Survey Erasmus+ students
- 83. Dental Tribune: Project "Study of Dental Medicine in English"
- 84. Leaflet "Study of Dental Medicine in English"
- 85. School of Dental Medicine University of Zagreb Integrated Study in English study programme https://www.sfzg.unizg.hr/en/integrated\_study/study\_program
- 86. School of Dental Medicine University of Zagreb Integrated Study in English enrolment conditions https://www.sfzg.unizg.hr/en/integrated\_study/study\_english
- 87. Example of communication with potential foreign students

- 88. School of Dental Medicine University of Zagreb Integrated Study in English list of courses https://www.sfzg.unizg.hr/en/integrated\_study/list\_of\_courses
- 89. School of Dental Medicine University of Zagreb Integrated Study in English English / Croatian I https://www.sfzg.unizg.hr/en/course/227269
- 90. School of Dental Medicine University of Zagreb Integrated Study in English Croatian/ English II https://www.sfzg.unizg.hr/en/course/184108
- 91. School of Dental Medicine University of Zagreb Integrated Study in English writing a thesis https://www.sfzg.unizg.hr/integrirani\_studij/diplomski\_raD
- 92. Thesis writing roadmap
- 93. Instruction for the organisation of a thesis
- 94. Booklet of clinical skills
- 95. Survey questionnaire for students who have completed IUGUS-DM
- 96. Diploma PGSS
- 97. Regulation on the Content of Diplomas and Diploma Supplements
- 98. Decision on the Amount of Fees for the Procedure Costs and Issuing of Documents and Teaching Aids
- 99. Diploma supplement PDSS
- 100. ASHE Research on employability of students who have graduated in the academic year 2018/2019
- 101. Results of the Research on employability of alumni of the School of Dental Medicine 2014/2015 2020/2021
- 102. Booklet of continuing education courses at the School of Dental Medicine 2022
- 103. Plan for the course "Career development in Dentistry"
- 104. Minutes of the Meeting of the sixth-year students with employers 2021
- 105. Records of activities of maintaining contact with former students
- 106. Newsletter of the School of Dental Medicine https://www.sfzg.unizg.hr/promidzba/glasilo\_sfzg
- 107. Alumni assembly bodies http://www.unizg.hr/nc/vijest/article/na-skupstini-saveza-alumni-unizg-izabran-predsjednik-i-clanovi-tijela-saveza-za-sljedece-cetiri/

#### IV# "IV. TEACHING AND INSTITUTIONAL CAPACITIES (ESG 1.5., ESG 1.6.)"

- 1. Labour Act
- 2. Basic Collective Agreement for Public Servants
- 3. Act on Scientific Activity and Higher Education
- 4. Collective Agreement for Science and Higher Education
- 5. Statute of the University of Zagreb
- 6. Bylaws of the School of Dental Medicine University of Zagreb
- 7. Regulation on Conditions for the Appointment to Scientific Titles
- 8. Amendment Regulations to the Regulations on Conditions for the Appointment to Scientific Titles
- 9. Regulation on the Minimal Conditions of Work Obligations for the Re-Election to Scientific, Scientific-Teaching, Artistic-Teaching, Teaching and Professional Positions

- 10. Decision on the Necessary Conditions for Assessing the Teaching and Scientific-Professional Activity in the Procedure of Re-Election to Scientific-Teaching Titles
- 11. Human Resources Management Plan for 2022
- 12. Consents of the University of Zagreb
- 13. Consents of the Ministry of Science and Education
- 14. Public competition for the election of new teachers Jutarnji list
- 15. Public competition for the election of new teachers Official Gazette
- 16. Teacher Election Board https://www.sfzg.unizg.hr/intranet/studenti/odbor za izbor nastavnika?@=5v5o#news 364403
- 17. Guidelines for the applicant for the appointment to scientific-teaching title
- 18. Guidelines for the expert committee for the appointment to scientific-teaching title
- 19. Guidelines for filling in the Form for the appointment to scientific title of the Field Committee for Biomedicine and Health https://www.sfzg.unizg.hr/intranet/studenti/odbor\_za\_znanost
- 20. Form-Assistant Professor-assessment of teaching and professional activity
- 21. Form-Associate Professor-assessment of teaching and professional activity
- 22. Form-Full Professor-assessment of teaching and professional activity
- 23. Form-Full Professor in Permanent Status-assessment of teaching and professional activity
- 24. Template for the report for the appointment to scientific-teaching title
- 25. Decision on the Necessary Conditions for Assessing the Teaching and Scientific-Professional Activity in the Procedure of Appointment to Scientific-Teaching Titles
- 26. Self-Evaluation Form for Assistants and Postdoctoral Researchers
- 27. Form for the Mentors' Annual Report on Assistants and Postdoctoral Researchers
- 28. Academic teaching excellence Agreement
- 29. Academic teaching excellence Programme
- 30. Academia Master Class Report
- 31. Academia Master Class Programme
- 32. Information on the Project Internationalisation of Higher Education Study of Dental Medicine in English https://www.sfzg.unizg.hr/projekti/info\_o\_projektu
- 33. SRCE Report on Merlin system workshops
- 34. Example of results of an online survey on the assessment of the quality of teaching and teachers
- 35. Booklet of clinical skills
- 36. Criteria for academic mobility
- 37. Records of Erasmus Staff academic teacher mobility
- 38. Records of outgoing teacher mobility
- 39. Records of incoming teacher mobility
- 40. Oral Potentially Malignant Disorders: Training of Healthcare Professionals https://www.unimi.it/en/international/university-milan-world/international-agreements/oral-potentially-malignant-disorders-training-healthcare-professionals
- 41. Programme for Amendments to the Detailed Urban Plan (DUP)
- 42. Archives and Archival Material Act
- 43. Plan of working units in an exercise room
- 44. Zoning plan for the adaptation of the purchased space

- 45. Registrar of acquired scientific and professional equipment 2015-2021
- 46. Regulations on the work of the library
- 47. Library of the School of Dental Medicine Croatian https://www.sfzg.unizg.hr/knjiznica\_ssk
- 48. Library of the School of Dental Medicine English https://www.sfzg.unizg.hr/knjiznica\_ssk/library
- 49. Bibliometric services https://www.sfzg.unizg.hr/knjiznica\_ssk/bibliometrijske\_usluge
- 50. Library catalogue https://www.sfzg.unizg.hr/knjiznica\_ssk/katalozi
- 51. Budget Act
- 52. Accounting Act
- 53. Regulations on the budget accounting and accounting plan
- 54. Regulations on criteria and method of using own and dedicated revenue
- 55. Fiscal Responsibility Act

#### **V#** "V. SCIENTIFIC ACTIVITY"

- 1. Scientific productivity table 2018
- 2. Scientific productivity table 2019
- 3. Scientific productivity table 2020
- 4. Scientific productivity table 2021
- 5. Criteria for the selection of the best scientific work
- 6. Acta stomatologica Croatica ranking in 2020 https://hrcak.srce.hr/acta-stomatol-croat
- 7. Dean's Work Report 2018/2019
- 8. Dean's Work Report 2019/2020
- 9. Dean's Work Report 2020/2021
- 10. Defended doctoral dissertations 2016-2021
- 11. Postgraduate Doctoral Study dissertation https://sites.google.com/a/sfzg.hr/doktorski-studij-dentalna-medicina/disertacija?authuser=0
- 12. Participation of the employees of the School of Dental Medicine in gatherings https://www.bib.irb.hr/pretraga/?operators=and|Stomatolo%C5%A1ki+fakultet%2C+Zagreb+%2865%29|text|institution&subgroup=ca-abstracts\_in\_proceedings%7Cca-abstracts\_in\_proceedings\_ext%7Cca-abstracts\_in\_proceedings\_shortcomm%7Cca-other\_conference\_submissions&year=2021%7C2020%7C2019%7C2018%7C2017%7C2016%7C2015
- 13. ORCA https://www.orca-caries-research.org/events/past-events
- 14. IOFOS https://www.iofos.eu/?page\_id=385
- 15. Biodegradable Implants for Bone Tissue Engineering https://topomatika.hr/projekt-biorazgradivi\_implantati\_za\_inzenjerstvo\_kostanog\_tkiva/
- 16. IADR Professor Zrinka Tarle, PhD
- 17. King's College London Professor Ivana Miletić, PhD
- 18. Professional societies of the Croatian Medical Association https://www.hlz.hr/strucna-drustva-hlz/
- 19. University Hospital Centre Zagreb Reference Centres https://www.kbc-zagreb.hr/84-referentna-centra.aspx
- 20. Decision on Croatian National Science Awards for 2016

- 21. Decision on Croatian National Science Awards for 2015
- 22. Andrija Štampar Award http://www.unizg.hr/istrazivanje/istrazivanje-i-inovacije/nagrade-za-posebna-postignuca/nagrada-andrija-stampar/
- 23. Decision on Croatian National Science Awards for 2020
- 24. CED IADR Recognition of Professor Ivan Alajbeg, PhD
- 25. Recognition of Professor Dijana Zadravec, PhD
- 26. Work Report of the Faculty of Kinesiology
- 27. Project Base of the Croatian Science Foundation https://hrzz.hr/baza-projekata/
- 28. Grants of the University of Zagreb 2015
- 29. Grants of the University of Zagreb 2016
- 30. Grants of the University of Zagreb 2017
- 31. Grants of the University of Zagreb 2018
- 32. Grants of the University of Zagreb 2019
- 33. Grants of the University of Zagreb 2020
- 34. Grants of the University of Zagreb 2021
- 35. Popularisation of STEM https://huhiv.hr/popularizacijom-stem-a-do-ocuvanja-javnog-zdravlja/
- 36. Minutes of the sessions of the School Council 2016-2021
- 37. Election of Professor Hrvoje Brkić, PhD, as visiting professor
- 38. Election of Professor Asja Čelebić, PhD, as visiting professor
- 39. ASCRO editor-in-chief https://ascro.hr/
- 40. ASCRO editorial board
- 41. Bulletin of the International Association for Paleodontology https://paleodontology.com/journal/
- 42. MDPI Dental education https://www.mdpi.com/journal/dentistry/special\_issues/ Dental\_Education
- 43. MDPI Dental education Vol 2 https://www.mdpi.com/journal/dentistry/special\_issues/ Dental Education Volume 2
- 44. MDPI dental biomaterials https://www.mdpi.com/journal/materials/special\_issues/dental biomaterial
- 45. MDPI bulk fill composites https://www.mdpi.com/journal/materials/special\_issues/bulk\_fill\_composites
- 46. MDPI bioactive materials in dentistry https://www.mdpi.com/journal/materials/special\_issues/Bioactive\_Materials\_in\_Dentistry
- 47. CED-IADR 2019 https://ced-iadr2019.com/?p=Congress\_Information
- 48. Melanoma days 2020
- 49. XV. EWP Professor Darko Božić, PhD
- 50. Melanoma days Programme 2020
- 51. Strategic Programme of Scientific Research of the School of Dental Medicine 2015-2019
- 52. Self-evaluation of the School of Dental Medicine 2009-2014
- 53. Postgraduate Doctoral Study equipment https://sites.
  google.com/a/sfzg.hr/doktorski-studij-dentalna-medicina/
  oprema-dostupna-na-stomatolo%C5%A1kom-fakultetu?authuser=0

- 54. Committee decision on the best scientific work and scientist 2016
- 55. Committee decision on the best scientific work and scientist 2017
- 56. Committee decision on the best scientific work and scientist 2018
- 57. Committee decision on the best scientific work and scientist 2019
- 58. Committee decision on the best scientific work and scientist 2020
- 59. Committee decision on the best scientific work and scientist 2021
- 60. Criteria for the Andrija Štampar Award
- 61. Decision on financial support for postdoctoral researchers
- 62. Postgraduate Doctoral Study roadmap https://sites.google.com/a/sfzg.hr/doktorski-studij-dentalna-medicina/hodogram-studija?authuser=0#h.i17szlbusmpy
- 63. Science Picnic http://znanstvenipiknik.weebly.com/sudionici5.html
- 64. Virtual Congress https://www.sfzg.unizg.hr/studenti/virtualni\_kongres
- 65. Congress of Students of Dental Medicine in Zagreb https://www.sfzg.unizg.hr/\_news/12040/A3%20Plakat.pdf
- 66. Rector's Award https://www.sfzg.unizg.hr/znanstvena\_djelatnost/rektorova\_nagrada