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# Accreditation Report for the Undergraduate Study Programme of:

**Dentistry** 

Institution: Aristotle University of Thessaloniki (AUTH)

Date: 13 June 2021





Report of the Panel appointed by the HAHE to undertake the review of the Undergraduate Study Program of **Dentistry** of the **Aristotle University of Thessaloniki** for the purposes of granting accreditation

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# PART A: BACKGROUND AND CONTEXT OF THE REVIEW

# I. The External Evaluation & Accreditation Panel

The Panel responsible for the Accreditation Review of the Undergraduate Study Program of **Dentistry** of the **Aristotle University of Thessaloniki** (AUTH) comprised the following five (5) members, drawn from the HAHE Register, in accordance with Laws 4009/2011 & 4653/2020:

# 1. Prof. Efthimios Mitsiadis (Chair)

University of Zurich, Switzerland

#### 2. Prof. Fani Anagnostou

University of Paris, France

# 3. Prof. Petros Papagerakis

University of Saskatchewan, Canada

#### 4. Prof. Nikolaos Silikas

University of Manchester, United Kingdom

#### 5. Dr. Athanasios Devliotis

President of the Hellenic Dental Association, Greece

#### II. Review Procedure and Documentation

The Hellenic Authority for Higher Education (HAHE) formed an external and independent panel of experts to conduct an assessment of the compliance of the study program of Dentistry of the Aristotle University of Thessaloniki (AUTH) in accordance with the HAHE Quality Assurance requirements (laws 4009/2011 & 4653/2020). The assessment was conducted through document reviews and online interviews. The method used was an evidence-based process cantered on a sampling of the Department's activities and it was aimed at evaluating the fulfilment of the HAHE requirements of the relevant Quality Standard of the Undergraduate Study Program (Integrated Master) and commenting on its compliance, effectiveness and applicability for the scope of the requirements. The information provided by the School of Dentistry (hereinafter "School") was assumed to be factually correct.

Due to the unprecedented circumstances of the Covid-19 pandemic, the entire evaluation and accreditation exercise did not include a site visit of the School in the University campus, in Thessaloniki, but was carried out remotely using the Zoom platform.

On February 12, 2021 the External Evaluation and Accreditation Panel (EEAP) received from HAHE the Accreditation support material from the HAHE Cloud link<sup>1</sup>, which contained the following:

# A. Dentistry – Aristotle University of Thessaloniki (AUTH) Material, consisting of the documents:

- B0. Contents
- B1. Proposal of Academic Accreditation
- B2. Quality Policy of Undergraduate Study Program
- B3. Study Guide
- B4. Regulations (Governmental & Ministerial decisions; Regulation of Library; Regulation of Practical Exercise of the Undergraduate Students; Instructions for Underground Spaces and Laboratories; Regulations of Patient Care etc)
- B5. Course Outlines (various entities)
- B6. Quality Targeting
- B7. Model Questionnaires to Students for Course Evaluation and Results
- B8 Internal Evaluation of Dentistry Program
- B9. Quality Data OPESP
- B10 Diploma Supplement (international ranking, visibility, research output, distinctions, external evaluation report, academic statistics, mobility – Erasmus etc)

#### B. HAHE Material, containing the documents:

- European Qualifications Framework
- Accreditation Guide
- P12a. Guidelines for the EEA Panel
- P13. Mapping Grid
- P14. Template for the Accreditation Report
- Standards for Quality Assurance of Undergraduate Programs
- ABBREVIATIONS

<sup>&</sup>lt;sup>1</sup> https://docs.ethaae.gr/s/fSBwpYdGpg8wCPB

- Quality Indicators Dental School 2015-2016
- Quality Indicators Dental School 2016-2017
- Quality Indicators Dental School 2017-2018
- Quality Indicators Dental School 2018-2019
- Quality Indicators Undergraduate Program Dentistry 2015-2016
- Quality Indicators Undergraduate Program Dentistry 2016-2017
- Quality Indicators Undergraduate Program Dentistry 2017-2018
- Quality Indicators Undergraduate Program Dentistry 2018-2019

On Monday May 31, 2021, an orientation meeting via Zoom was organized by HAHE's Director General Dr. Christina Besta addressing the procedures to be followed during the virtual site visit and subsequent report drafting. During this meeting, a thorough presentation was made on the quality assurance (QA) mission and guidelines of the accreditation process were given.

In view of getting to know each other and establishing a *modus operandi* regarding the exercise of accreditation, the EEAP members met remotely on Tuesday June 8, 2021, from 18:00 to 20:00 (Athens time).

On Wednesday June 9, 2021, the EEAP Review of the Dentistry undergraduate study program (UP) started formally via Zoom at 17:00 (Athens time). In the first part of this virtual meeting (17:00-17:30), the AUTH Vice-rector and president of MODIP Prof. D. Kovaios familiarised the panel with the AUTH facts and figures, and the Dean of the Dental School Prof. A. Poulopoulos gave an overview of the School's and UP's origins, evolution and current status. Thereafter (17:45-19:45) different aspects of compliance with the accreditation principles (A1-A10) were presented by OMEA Head Prof. K. Tolidis and discussed with him and other OMEA members of the School, including Prof. N. Economides, Prof. L. Zouloumis, Prof. E. Kotsiomiti, Prof. D. Sakellari, Assoc. Prof. D. Tortopidis, Assoc. Prof. N. Dabarakis and Assoc. Prof. Cr. Gogos with the presence and supporting data from MODIP representative Prof. A. Goulas, plus MODIP staff Ms A. Tzaneraki (MODIP secretary), Dr K. Aivazidis (MODIP Quality Management Official) and Ms E. Bitsiadou (MODIP secretariat). The EEAP subsequently had a teleconference (20:30-21:15) with selected Faculty members who have distinct roles in the School that included three Professors (A. Pisiotis, P.Koidis, V. Anastassiadou), two Associate Professors (G. Venetis, K. Arapostathis), foor Assistant Professors (A. Matiakis, P. Kouros, D. Apatzidou, A. Delandoni)

The following day, Thursday June 10, 2021, starting at 17:00, the EEAP met with 12 undergraduate student representatives of the 2<sup>nd</sup>, 3<sup>rd</sup>, 4<sup>th</sup>, and 5<sup>th</sup> years. Thereafter, at 18:00, the EEAP had an on-line tour of classrooms, lecture halls, libraries, research laboratories, clinics, and other facilities including discussions with Professors K. Tolidis, El. Koulaouzidou, Assoc. Professors El. Kontonasaki, A. Bakopoulou, Cr Gogos, Cr. Aggelopoulos, Assist. Professors D. Andreadis, A. Arhakis, O. Naka, librarian M. Nikolaki and administrative staff member V. Saropoulou. The EEAP had been previously given the links to access the videos on AUTH and School's facilities (video embedded in the website).

The next virtual meeting (19:30-20:15) was between the EEAP members and alumni of the Dentistry study program who work in various sectors (Assoc. Prof. V. Papaioannou and Assoc. Prof. S. Gizani from the Dental School of the NKUA, private practitioners Dr I. Koutselaki, Dr. A. Moraitou, Dr F. Karipidou, Dr V. Kourbetis; Dr G. Koloutsos, oral maxillofacial surgeon in

Polycastro-Kilkis, Dr K. Paraskevopoulos and Dr A. Kyrgidis, oral maxillofacial surgeons in NHS G. Papanikolaou Hospital.

In the next teleconference, the EEAP discussed with ten social partners and employers of the study program's graduates (Prof. K. Anastasiadis, Dean of the Department of Medicine AUTH; Ms F. Gome, Head of EODY Northern Greece; Dr K. Kougias, President of the Dental Association of Thessaloniki; Dr K. Manthos, Deputy Director Dental Sector in the 424 General Military Hospital; Pro. A. Athanasiou, Dean of the Dental School of the European University of Cyprus; Dr P. Pantelidis, President of the administrative board of the AHEPA General Hospital of Thessaloniki; Dr P. Saraki, Scientific Relations Manager Oral Care; Dr I. Melakopoulos, President of the Stomatological Society of Greece; Dr S. Papageorgiou, Biomedical Sciences in the Univ. of West Attica; and Dr V. Sedky, Staff of the Misr University Cairo-Egypt).

The following day, Friday June 11, 2021, starting at 17:00, the EEAP members provided an informal overview of their preliminary impressions and assessment of the Dentistry study program to the OMEA (Prof. K. Tolidis, Prof. L. Zouloumis, Prof. N. Economides, Prof. D. Sakellari, Prof. E. Kotsiomiti, Assoc. Prof. D. Tortopidis, Assoc. Prof. N. Dabarakis) and MODIP (Prof. A. Goulas, staff members Ms A. Tzaneraki, Dr K. Aivazidis and Ms E. Bitsiadou) representatives. Thereafter, at 17:30, the Rector of AUTH Prof. N. Papaioannou and Vice-Rector of AUTH Prof. D. Kovaios, the Dean of the Dental School Prof. A. Poulopoulos joined the meeting with the representatives of OMEA and MODIP and briefly discussed their major findings and recommendations.

Upon completion of the three days of virtual meetings at AUTH, the EEAP was glad to note a very positive atmosphere and a willingness of the School to cooperate and support the AUTH QA policy at all levels with a commitment to maintaining and further upgrading the quality standards of the School in compliance with HAHE. The EEAP would like to thank the School and AUTH Administration as well as all Faculty members for their cooperation and fruitful discussions.

During the following two days (June 12-13, 2021), the EEAP members had remote online meetings for the completion of the draft Accreditation Report (AR).

The EEAP requested the various power point presentations used by the Faculty members. This material was delivered by the School in time and has been considered during the writing of the AR.

# **III.** Study Programme Profile

The Dental School is part of the Department of Medical Sciences of the AUTH and is located in the University's central campus in Thessaloniki. It was founded in 1959. The undergraduate study program is designed with the aim of offering high-quality comprehensive studies in Dentistry at all levels of dental specializations. The program covers a broad range of areas within Biology, Medicine and Dentistry and its sub-disciplines. It aspires to provide the students with both a strong theoretical background and clinical training in all fields of Dentistry. The program amounts to a total of 300 ECTS over 5 years (10 semesters, 30 ECTS per semester) and upon completion it leads to a Diploma in Dentistry in accordance with EU regulations. The undergraduate study program starts with basic dental and medical courses (most of them in common with the Faculty of Medicine) the first 4 semesters and continues with specialisation courses in the remaining 6 semesters, where the students can follow all the different clinical orientations given by the School. These studies are carried out together with clinical or basic research activities.

The great majority of the ~110 incoming students per year are admitted with high qualifications (typically > 18000 points in the national entry examination) and the average actual duration of their studies to obtain the diploma is 5.5 years with an average grade of >7.00 (out of 10). There were ~800 registered undergraduate students actively pursuing their studies in the academic year 2020-2021, 84 doctoral candidate students. 111 students gained entrance in the 1<sup>st</sup> year in 2020. It is worth noting that the number of students requested by the School is 30 for 2019 and 2020 and was 72 for the years 2015-2016.

Since its previous external evaluation in 2010, the School has shown a spectacular academic progression as evidenced by the increasing number of high-impact research publications and corresponding citations, participation in competitive research programs and awards gained in competitive research manifestations. However, during the same period the School has suffered a significant decrease in Faculty members (>50% decrease) together with a drastic decrease of the financial support from the State because of the recent economic crisis.

The students graduating from the School are well qualified and can be self-employed immediately or find employment in academic and health institutions (mostly abroad), research centres for post-graduate training (in Greece or abroad) and other organisations in the public and private health sectors both in Greece and abroad. Finally, the School offers advanced studies, such as postgraduate programs, doctoral studies, post-doctoral research and actively participates to the continuous education of practitioners (dentists).

The School facilities reside in one old building situated in the University campus, including classrooms, lecture halls, clinics, offices, teaching and research laboratories, secretariat, and allocated space for a library and reading spaces. The School will take advantage of a new library shared by all Health Science Departments (the works of construction will start soon). Clinics,

classrooms as well as teaching and research laboratories are functional and contain up-to-date, brand new equipment. However, sparse research spaces could be merged in view of increasing interactions between the researchers of the various disciplines and the evolving needs of science. A plan in merging all research activities in one floor could be elaborated and executed in the next few years.

The School is composed of 44 Faculty members (28/16 male to female), 5 technical laboratory staff (ETEΠ), with 6 administrative and support employees. The current demographics of the Faculty members attest to a very experienced human resource. In addition to their clinical and teaching duties, the Faculty are engaged in research and outreach service to society. Similarly, the School participates, together with the Hellenic Dental Council, in the Continuous Education program.

The School, supported and helped by the AUTH, aspires to strengthen its links to a range of societal and industrial partners through targeted initiatives. Both, the President and the Vice-President of AUTH affirmed that the promotion of the Dental School is one of the priorities of the University. The undergraduate students are strongly encouraged by the Faculty members to participate in a number of scientific and social events.

In the School are annexed additional dental or medical centres in Papanikolaou Hospital, 424 General Military Hospital, Agios Dimitrios General Hospital and AHEPA.

# PART B: COMPLIANCE WITH THE PRINCIPLES

# **Principle 1: Academic Unit Policy for Quality Assurance**

INSTITUTIONS SHOULD APPLY A QUALITY ASSURANCE POLICY AS PART OF THEIR STRATEGIC MANAGEMENT. THIS POLICY SHOULD EXPAND AND BE AIMED (WITH THE COLLABORATION OF EXTERNAL STAKEHOLDERS) AT ALL INSTITUTION'S AREAS OF ACTIVITY, AND PARTICULARLY AT THE FULFILMENT OF QUALITY REQUIREMENTS OF UNDERGRADUATE PROGRAMMES. THIS POLICY SHOULD BE PUBLISHED AND IMPLEMENTED BY ALL STAKEHOLDERS.

The quality assurance policy of the academic unit is in line with the Institutional policy on quality, and is included in a published statement that is implemented by all stakeholders. It focuses on the achievement of special objectives related to the quality assurance of study programmes offered by the academic unit.

The quality policy statement of the academic unit includes its commitment to implement a quality policy that will promote the academic profile and orientation of the programme, its purpose and field of study; it will realise the programme strategic goals and it will determine the means and ways for attaining them; it will implement the appropriate quality procedures, aiming at the programme continuous improvement.

In particular, in order to carry out this policy, the academic unit commits itself to put into practice quality procedures that will demonstrate:

- a) the suitability of the structure and organization of the curriculum;
- b) the pursuit of learning outcomes and qualifications in accordance with the European and the National Qualifications Framework for Higher Education;
- c) the promotion of the quality and effectiveness of teaching;
- d) the appropriateness of the qualifications of the teaching staff;
- the enhancement of the quality and quantity of the research output among faculty members of the academic unit;
- f) ways for linking teaching and research;
- g) the level of demand for qualifications acquired by graduates, in the labour market;
- h) the quality of support services such as the administrative services, the Library, and the student welfare office;
- i) the conduct of an annual review and an internal audit of the quality assurance system of the undergraduate programme(s) offered, as well as the collaboration of the Internal Evaluation Group (IEG) with the Institution's Quality Assurance Unit (QAU).

#### **Study Program Compliance**

School's strategy intents to preserve and further increase its national and international visibility, acting as a centre of excellence in all fields of dentistry. This strategy is well designed, has a broad long-term vision and the execution of successive steps is satisfactory. Several new Biomedical Disciplines have emerged the last few years. Although the strategy of the School is to adopt several of these new trends, a bigger effort is needed towards this direction. For example, the incorporation/reinforcement of courses in Regenerative Biology/Medicine should be endorsed. Similarly, synergies and strong links exist between the School and the Medical

Faculty, however it is suggested to the School to increase these fruitful synergies in the various fields of Medical Biology/Regenerative Medicine.

The student program is based on international standards to offer both theoretical knowledge and practical training, introducing novel techniques and methodologies through a series of laboratory exercises and practical training/internship, which require the active involvement of the students. The School engages students to participate in the planning of new developments of the curriculum. Due to the engagement of both Faculty members and students, most of the students take no more than five and a half to six years to complete their studies.

Graduates from the School were very positive and thankful to the Faculty members, affirmed that they were very well trained and praised the quality of the undergraduate program, education and training that they received. All felt that by finishing their undergraduate studies were confident and ready for exerting their private practice or to follow post-doctoral or academic careers. However, all felt that the number of students was high and that the number of the Faculty reduced. All graduates admitted that the School has progressed tremendously the last 10 years and increased the quality of the equipment and possibilities for basic or clinical research.

All social and academic partners participating in the evaluation mentioned that the undergraduates, graduates, and Faculty members of the AUTH Dental School are very reliable, hard workers, enthusiastic, very helpful, with unique knowledge in some of the fields of dentistry. This active engagement of the stakeholders with the students and the Faculty members continues and the good training of the students is widely appreciated. The EEAP believes that this is a very positive and important element and encourages the Staff to continue their efforts towards this direction in order to further explore the increasing potential and opportunities with industrial and social partners, both locally and internationally.

The program is structured by semesters. The program is rational, well designed and articulated. Several courses dealing with new developments in the medical, biological, computing, physics fields should be progressively incorporated.

The Study Guide is up-to-date, and the program of studies is revised on a regular (yearly) basis. The curriculum revision procedures involve students' consultation.

Students with special needs (e.g., mobility problems) are accommodated by the AUTH and this effort is commendable and highly appreciated.

The program follows the European Credit Transfer System (ECTS). The workload is estimated high and the EEAP perceived that the Faculty members try hard to deal with the excessive workload, without however addressing serious concerns about. The EEAP estimates that some

of the traditional/classical courses should be revisited, by incorporating courses of actual interest in the dental and medical field. The EEAP was informed that a considerable decrease of the number of the Faculty members realised during the last years, dropping down the number of Faculty members to 44. Furthermore, the number of admitted students is by far very high (more than 110), representing more than double the number of students that the School requests to the Ministry of Education (30 to 40 students per year). These decisions from the State compromise the efforts of the School, disadvantage the undergraduate students since they get a less qualitative education, and inhibit all efforts from the School and the AUTH towards quality and excellence.

The students perform 3-month clinical training sessions in external Institutions, Hospitals, and Dental Clinics (including Military clinics). This initiative is highly appreciated by both students and instructors.

Most of the students showed enthusiasm towards research activities, and the EEAP suggests to the Faculty to continue their efforts towards research / medical philosophy and guide this large proportion of students in research-driven activities through increasing Erasmus exchanges and other similar initiatives. The plan to create a study program giving all lectures in English will greatly contribute to students' and Faculty members' exchanges and possibly creation of research collaborative projects.

There are procedures in place to officially implement changes and approve them in the General Assembly. The structure of the study program is rational and clearly articulated, and the Student Guide is complete, concise, and appropriate. The Student Guide is updated every year and there is a plan to revise the study program on a regular basis. The curriculum revision procedures do involve an active consultation with students or representatives.

#### **Panel Judgment**

Principle 1: Academic Unit Policy for Quality Assurance	
Fully compliant	Х
Substantially compliant	
Partially compliant	
Non-compliant	

- Methods of student engagement should be explored, such as videoconferences with successful and established alumni members from abroad. Students should be responsible for the invitation of selected lectures and organization of the whole event.
- One-day events with exhibitions allowing the students to familiarize themselves with actual
  job issues (private practice, academic or industrial orientation etc.) should be organized by
  the School involving the active participation of academics, entrepreneurs etc.
- The EEAP encourages the School to significantly reduce the coursework, aiming to introduce advanced concepts and not to lead to course repetitions. The Faculty members should continue their engagement to inspire students towards a research / medical philosophy to the undergraduate students by keeping, and even increasing clinical and basic researchoriented activities in close collaboration with other AUTH Departments (Medicine, Biology, Physics etc).
- The EEAP discussed the possibility of including courses on the general principles of Regenerative Dentistry/Medicine, Biomedicine and Digital Dentistry during the curriculum.
- It is of prime importance the immediate creation of a program in English, following the example of the Medical Department. Courses and presentations given in English will facilitate student preparedness for postgraduate activities, participation in international venues and Erasmus student exchange purposes. This will also increase the international visibility of the School.

# **Principle 2: Design and Approval of Programmes**

INSTITUTIONS SHOULD DEVELOP THEIR UNDERGRADUATE PROGRAMMES FOLLOWING A DEFINED WRITTEN PROCESS WHICH WILL INVOLVE THE PARTICIPANTS, INFORMATION SOURCES AND THE APPROVAL COMMITTEES FOR THE PROGRAMME. THE OBJECTIVES, THE EXPECTED LEARNING OUTCOMES, THE INTENDED PROFESSIONAL QUALIFICATIONS AND THE WAYS TO ACHIEVE THEM ARE SET OUT IN THE PROGRAMME DESIGN. THE ABOVE DETAILS AS WELL AS INFORMATION ON THE PROGRAMME'S STRUCTURE ARE PUBLISHED IN THE STUDENT GUIDE.

Academic units develop their programmes following a well-defined procedure. The academic profile and orientation of the programme, the objectives, the subject areas, the structure and organisation, the expected learning outcomes and the intended professional qualifications according to the National Qualifications Framework for Higher Education are described at this stage. The approval or revision process for programmes includes a check of compliance with the basic requirements described in the Standards, on behalf of the Institution's Quality Assurance Unit (QAU).

Furthermore, the programme design should take into consideration the following:

- the Institutional strategy
- the active participation of students
- the experience of external stakeholders from the labour market
- the smooth progression of students throughout the stages of the programme
- the anticipated student workload according to the European Credit Transfer and Accumulation System
- the option to provide work experience to the students
- the linking of teaching and research
- the relevant regulatory framework and the official procedure for the approval of the programme by the Institution

# **Study Program Compliance**

The formulated strategy aims to promote AUTH dental school as centre of excellence in teaching learning and research in the field of dentistry, attractive for higher educated candidates from abroad countries. The strategy is well designed and supported by AUTH School of Health Sciences. However, as several new Biomedical Disciplines have emerged the last few years and the Dental School should be adapted its strategy to these trends. For instance, fields such as regenerative Biology/Biomedicine, digital dentistry should be reinforced and/or incorporated in the curriculum. Taking advantage to its place in the AUTH campus, and the established privileged relations with medical school, Dental School should increase the synergies in the field of Medical Biology and OMICs, Biomimetics and Personalized medicine. Moreover, It would be useful if some pivotal courses and presentations could be given in English to facilitate student preparedness for postgraduate activities, and the participation in Erasmus student exchange purposes.

The student program is based on international standards to offer both theoretical knowledge and practical training, to introduce modern techniques and methodologies through a series of laboratory exercises and practical training/internship, which require the active involvement of

the students. Therefore, the program aims to engage students in participating in the planning of new developments of the curriculum.

During interview, all social and academic partners participating in the evaluation mentioned that the AUTH -Dentistry undergraduates, graduates, and Faculty members are very reliable, enthusiastic and helpful. Their participation during the pandemic crisis and their social contribution was underlined by all the partners. The good training of the students is widely appreciated. The active engagement of the stakeholders with the students continues and is intensified. For instance, during interview, it has been proposed the attribution of research award from Hellenic Dental Association). The EEAP believes that there is a considerably increasing potential in exploring opportunities with social and industrial partners, in national and international level.

During the interview, graduates from the AUTH Dental School have affirmed that they received a high-level theoretical education and clinical training. They were very positive and thankful to the Faculty members. They mentioned that were confident and ready for exerting their private practice or to follow post-doctoral or academic paths after their undergraduate studies.

The program is structured by semesters. The majority of the program is rational, well designed and articulated. The Study Guide is up-to-date, and the program of studies is revised on a regular (annual) basis. The curriculum revision procedures involve students' consultation. AUTH dental school offer places for education of students with special needs, a point highly appreciated. There are also continuous and restless efforts from Faculty members and students at the School to accommodate social groups with special needs.

The undergraduate program is in line with international standards guidelines set out by the Association for dental education in Europe (ADEE). It follows the European Credit Transfer System (ECTS). It is important to note that the EEAP was informed that while the number of admitted remain very high (114 per year) there is a considerable decrease (55%) of the number of the staff members, resulting in increase by 4 times the average educational workload (20 and 25 hours/week instead of 6+2/h/week as indicated by law). It was therefore evident that this workload results in disproportionate fatigue among teaching staff members. Improvement of the ratio number of staff/students which is directly related to a State-secured financial plan is therefore mandatory.

AUTH dental school provides sufficient work experience to the students. In addition to the clinical training in the dental school and hospitals, the students perform 3-month clinical training (4 hours/day), at practitioners' dental offices. They are remunerated thanks to the "AUTH Student Internship" Program, which is funded by the European Social Fund and co-financed by

National Resources through the Operational Program "Competitiveness, Entrepreneurship and Innovation"

One of the strong points at AUTH dental school is the linking of the teaching with the research. Undergraduates are encouraged to participate in basic or clinical research projects. Their contribution is presented in national and international congress and eventually help their professional development as it is used as criterion for admission to postgraduate programs. The quality of this contribution is attested by numerous prizes awarded in national and international level. The EEAP encourages this linking and suggests giving more opportunities and time to undergraduates to participate in experimental studies and to perform bench work.

There are procedures in place to officially implement changes and approve them in the General Assembly. The structure of the study program is rational and clearly articulated, and the Student Guide is complete, concise, and appropriate. The Student Guide is updated every year and there is a plan to revise the study program on a regular basis. The curriculum revision procedures do involve an active consultation with students or representatives.

#### **Panel Judgement**

Principle 2: Design and Approval of Programmes	
Fully compliant	Х
Substantially compliant	
Partially compliant	
Non-compliant	

- The EEAP highlights the possibility of including courses on the general principles of Regenerative Dentistry/Medicine, Biomedicine Biomimetics and Digital Dentistry during the curriculum probably in collaboration with Medical/Pharmacy Departments.
- The EEAP suggests intensification of the "extroversion" School strategy by (i) introducing some more courses in English to facilitate participation in international venues and Erasmus

student exchange and (ii) by inciting implication of established alumni members from abroad.

- The EEAP encourages and suggests the School to steer a larger proportion of undergraduates to participate in research activities and allocate appropriate time.
- The EEAP suggests improvement of the ratio teaching staff/undergraduates which is directly related to a State-secured financial plan for sustainable development.

# Principle 3: Student- centred Learning, Teaching and Assessment

INSTITUTIONS SHOULD ENSURE THAT THE UNDERGRADUATE PROGRAMMES ARE DELIVERED IN A WAY THAT ENCOURAGES STUDENTS TO TAKE AN ACTIVE ROLE IN CREATING THE LEARNING PROCESS. THE ASSESSMENT METHODS SHOULD REFLECT THIS APPROACH.

Student-centred learning and teaching plays an important role in stimulating students' motivation, self-reflection and engagement in the learning process. The above entail continuous consideration of the programme's delivery and the assessment of the related outcomes.

The student-centred learning and teaching process

- respects and attends to the diversity of students and their needs, enabling flexible learning paths;
- considers and uses different modes of delivery, where appropriate;
- flexibly uses a variety of pedagogical methods;
- regularly evaluates and adjusts the modes of delivery and pedagogical methods aiming at improvement;
- regularly evaluates the quality and effectiveness of teaching, as documented especially through student surveys;
- reinforces the student's sense of autonomy, while ensuring adequate guidance and support from the teaching staff;
- promotes mutual respect in the student teacher relationship;
- applies appropriate procedures for dealing with students' complaints.

#### In addition:

- the academic staff are familiar with the existing examination system and methods and are supported in developing their own skills in this field;
- the assessment criteria and methods are published in advance;
- the assessment allows students to demonstrate the extent to which the intended learning outcomes have been achieved. Students are given feedback, which, if necessary is linked to advice on the learning process;
- student assessment is conducted by more than one examiner, where possible;
- the regulations for assessment take into account mitigating circumstances;
- assessment is consistent, fairly applied to all students and carried out in accordance with the stated procedures;
- a formal procedure for student appeals is in place.

#### **Study Program Compliance**

The undergraduate dental program at AUTH is well organised and student-centred. It is delivered with various delivery methods, including theoretical (lectures, tutorials and seminars in small groups) teaching, practical pre-clinical (demonstrations and simulations) and clinical (patient-based) training. Theoretical courses offered using several internet platforms. On-line teaching (Zoom) has become the norm during the pandemic. Indicatively, via e-learning has been carried out 115 courses and 80 assessed by quizzes enhancing the attentiveness of the students and validating real-time the delivery of information during the academic year 2020-2021. Teaching material and resources seems to be adequate. However, as online education is

increasing the EEAP estimates that employment of a technician dedicated in this task is necessary for the unhindered use of the e-learning tools.

The overall structure is coherent and meets the standards of ADEE. Curriculum of each academic year (courses per semester, their organization (hours and ways of teaching) as well as their credits) is approved by the Assembly staff and published in the Electronic Study Guide. It is also given detailed information on course type, ECTS, content, learning outcomes, teaching and assessment methods, and bibliography. During interview, students mentioned that are encouraged to develop individual skills. For instance, in addition to the clinical training, which takes place within the Dental School students perform a 3-month clinical training (4 hours/day) at practitioners' dental offices, enhancing their experience. They declared that they felt ready to commence their profession as dentists right after graduation Moreover, they highly appreciate that they have possibility participate in basic or clinical researcher thanks to several high research-incentive staff members. Yet, some students expressed the interest to follow post graduated programs in Greece and abroad.

The assessment of students' knowledge is carried out mainly through the examinations. The criteria, the method are posted in the electronic study guide in advance and the exam schedule, is published (Department website, Laboratory Secretariats) at least four weeks before the start of the examination period. Quality and effectiveness of teaching is evaluated. every semester, by the students, through the information system of MODIP of Auto (https: //www.modip.auth.gr/). Students complete the relevant anonymous questionnaire using their institutional account on the special platform. The results of the evaluations are examined by the teachers themselves and are taken into account by the Department, both for the planning of interventions and improvements of the Curriculum, as well as in processes of crisis and development of the staff members. For instance, for the overall results of the teaching assessment at 2018-2019, have been at approximately 70% satisfaction rate. Students' opinion is positive (70%) regarding the quality of teaching for the 78% of the teachers. It seems that 76% of teachers organise well their course. The self-evaluation questionnaire confirmed also a high participation (86.4%).

The students declared during interview that they have the support of staff members or the teaching graduates in carrying out their requited educational tasks, particularly in clinical training. It has to be underlined that, in AUTH there is Student Affairs Committee to help solve problems and/or conflicts that may be encountered by some undergraduates. It offers support to students with special needs, facilitates integration of foreign students, solves any problems that a student faces regarding his/her studies.

Overall, the undergraduate dental program at AUTH is well-organized with a successful blended-learning approach and innovative e-learning tools, efficiently adapting to the rapidly changing societal needs and educational advancements.

# **Panel Judgment**

Principle 3: Student- centred Learning, Teaching and	
Assessment	
Fully compliant	Х
Substantially compliant	
Partially compliant	
Non-compliant	

- The EEAP appreciates the use of e-learning tools and digitalisation and advise to continue further in this direction, and it suggest further development of the facilities for web-based tools for online education and the employment of a technician dedicated to e-learning tools and digitalisation development.
- The EEAP suggests providing more teaching in English, especially during the final year(s) of studies. This will enhance the capacity of the students to delve into the international literature, which will help them acclimatize with postgraduate education (either clinical or research-focused) in Greece or in abroad.

# Principle 4: Student Admission, Progression, Recognition and Certification

INSTITUTIONS SHOULD DEVELOP AND APPLY PUBLISHED REGULATIONS COVERING ALL ASPECTS AND PHASES OF STUDIES (ADMISSION, PROGRESSION, RECOGNITION AND CERTIFICATION).

Institutions and academic units need to put in place both processes and tools to collect, manage and act on information regarding student progression.

Procedures concerning the award and recognition of higher education degrees, the duration of studies, rules ensuring students progression, terms and conditions for student mobility should be based on the institutional study regulations. Appropriate recognition procedures rely on institutional practice for recognition of credits among various European academic departments and Institutions, in line with the principles of the Lisbon Recognition Convention.

Graduation represents the culmination of the students' study period. Students need to receive documentation explaining the qualification gained, including achieved learning outcomes and the context, level, content and status of the studies that were pursued and successfully completed (Diploma Supplement).

#### **Study Program Compliance**

At present, there are 816 undergraduate dental students at AUTH (ratio Male/Female 2/3). The primary body of dental students (approximately 65%) enter the AUTH dental program via the annual Pan-Hellenic National Examinations, whereas the rest 35% by alternative ways It should be noted that the number of undergraduate students eventually admitted into the Dental School program is disproportionately higher than the number of undergraduate students requested by the School (30) to the State. Graduates progression is monitored via an electronic portfolio.

The GPA of the graduating Dentists is currently at 6.79/10, whereas approximately 36% graduate with a GPA >7.0/10 et only 3% > 8.0/10. The average duration of graduation is approximately 6 years, whereas only about 5 % of the students are able to graduate within the designated 5-year period of studies. The Dental degree can be provided in both Greek and English versions, along with the detailed grades per course, throughout the curriculum.

It is worth to note that the mobility of undergraduates through ERASMUS and international ERASMUS program is encouraged and supported (Outgoing students 14 (Male/Female: 1/3 for the period 2014-2020). The successful functioning obtained thanks to different starting semester days across countries and the use of the ECTS elective courses to obtain the mandatory 30 ECTS credits).

AUTH dental studies under the current curriculum yields to highly qualified dentists, who enjoy fast employability. In addition, the fact that curriculum includes undergraduates participation in research projects enlarged opportunities for post-graduate education. The level and the quality of the education have been underlined by former students interviewed regardless the type of exercise type (private, or public hospital and/or academic) The latter was further evidenced during the interviews of the graduate group, some of which have received postgraduate education abroad or are currently academic staff members at Institutions abroad. Some of them continue to be affiliated and/or follow seminars in the AUTH Dental School. An alumni

association could bring closer the undergraduates to graduates in particular to currently academic staff members at Institutions abroad and to promote exchanges and scientific dialogue.

### **Panel Judgement**

Principle 4: Student Admission, Progression, Recognition and Certification	
Fully compliant	Х
Substantially compliant	
Partially compliant	
Non-compliant	

- The EEAP considers necessary to reduce the number of incoming students per year, accordingly to the Dental School's request. The ratio teaching staff/undergraduates has to be adjusted in order to optimise the quality of the theoretical as well as preclinical and clinical education in small groups.
- The EEAP appreciates the successful functioning of ERASMUS mobility program and encourages its further development.
- The EEAP prompts the creation of an alumni association to bring closer the undergraduates to graduates and to currently academic staff members at Institutions abroad.

# **Principle 5: Teaching Staff**

INSTITUTIONS SHOULD ASSURE THEMSELVES OF THE QUALIFICATIONS AND COMPETENCE OF THE TEACHING STAFF. THEY SHOULD APPLY FAIR AND TRANSPARENT PROCESSES FOR THE RECRUITMENT AND DEVELOPMENT OF THE TEACHING STAFF.

The Institutions and their academic units have a major responsibility as to the standard of their teaching staff providing them with a supportive environment that promotes the advancement of their scientific work. In particular, the academic unit should:

- set up and follow clear, transparent and fair processes for the recruitment of properly qualified staff and offer them conditions of employment that recognize the importance of teaching and research;
- offer opportunities and promote the professional development of the teaching staff;
- encourage scholarly activity to strengthen the link between education and research;
- encourage innovation in teaching methods and the use of new technologies;
- promote the increase of the volume and quality of the research output within the academic unit;
- follow quality assurance processes for all staff members (with respect to attendance requirements, performance, self-assessment, training etc.);
- develop policies to attract highly qualified academic staff.

#### **Study Program Compliance**

The Panel felt that the recruitment process is transparent and follows the formal regulations/state laws of the Ministry of Education. The policy to attract academic staff (advert) is mostly through the nationally implemented ΑΠΕΛΛΑ system. Furthermore, the Faculty did not indicate that there were signs of School inbreeding. However, it was understood that there are neither start up package available for new Faculty members (especially those in junior positions) or a formal mentoring process. This could be attributed to the loss of significant number of Faculty members/posts since 2010, which has increased the teaching workload and does not allow time to provide adequate mentoring support to new Faculty members or for those in the process of being promoted.

Several faculty members are research-active and there was high level of research outputs within the field of dentistry. Furthermore, the undergraduate and post-graduate students are involved in research-driven projects, which facilitates the link between theoretical/clinical education and research. This was evident from the high number of students participating in national/international congresses and abstracts submitted, as well as the research awards that have been received.

At the same time however, it was clear that there is an urgent need to attract additional Faculty members/researchers in basic research (genetics/molecular biology/immunology/stem cell biology with expertise in platform technologies) to support the relevant teaching and development of clinical/translational research with strong scientific foundations. The existing teams are well trained and with an established and solid international reputation but a strategic planning in recruiting new Faculty members that can deliver both education and basic research

with clear clinical applicability should be regarded as one of the priorities of the School's leadership.

The teaching is based on several methods and technologies. Following the previous external review, the school underwent a wide scope restructuring of the way that education is delivered. Currently, a combination of active/proactive and self-directing learning is followed with an enhanced element of reflection during the academic year. Furthermore, the recording of lectures and their availability through e-platforms is a positive development. Whilst this has led to high satisfaction of the undergraduate students and maintains high quality of undergraduate education, until recently the adoption of new technologies was not implemented. Since the pandemic due to COVID though, procedures applying new technologies were accelerated and a high number of web-seminars and e-learning have been adopted. The Panel was re-assured that these practises would be further continued especially since the feedback from the undergraduate students was very positive. Efforts could be also made to allow enhanced global education and internationalization through invited lectures from world experts that can be delivered by online platforms, videoconference collaborative teaching with other institutions that will allow exchange of ideas on specific topics, etc.

The Panel suggests a more targeted and focused research themes, which would guarantee creation of a track record and relevant long-term sustainability. Whilst the quality and quantity of research outputs are highly appraised and there is an element of collaboration between School's Units/Departments, these intra-departmental interactions for research purposes should be further reinforced and promoted based on a coherent research strategy, which will be sustainable. Shared equipment and resources across the different Departments will support the Faculty in their research interests. The coordination of all these research-related activities should be ensured by an appointed Director of Research and a research committee within the School. Furthermore, the Panel felt that the collaboration with the Medicine Department especially in areas where an overlap exists (chronic diseases, immunology) was a positive development and needs to be further enhanced and to also include other schools and units to promote as much as possible inter-professional education.

#### **Panel Judgement**

Principle 5: Teaching Staff	
Fully compliant	Х
Substantially compliant	
Partially compliant	
Non-compliant	

- The appropriate assigned time for teaching, service and research for each Faculty member should be derived through the annual performance review. The assignment of duties for each faculty should be transparent and accessible to all faculty.
- A Director of research and a research committee should be appointed.
- Develop a targeted, focused thematic research strategy, which will streamline both basic and clinical research and will allow the further participation of clinical/teaching intensive faculty and students in research while enhancing the critical mass of research intensive faulty within the school. These research-oriented Faculty members will also support the long-term sustainability and succession of the research teams/projects and will work with the Director of Research and research and educational committees to further promote integration of research to the whole curriculum.
- A coordinated approach to attract highly qualified academics with experience in research funding and ability to lead research teams should be considered as a priority.
- Number of staff should be proportional to the actual number of students per year to achieve an optimal faculty/student ratio of 1:7 as per international standards.
- The use of web-based tools for teaching should be further encouraged.

#### **Principle 6: Learning Resources and Student Support**

INSTITUTIONS SHOULD HAVE ADEQUATE FUNDING TO COVER TEACHING AND LEARNING NEEDS. THEY SHOULD -ON THE ONE HAND- PROVIDE SATISFACTORY INFRASTRUCTURE AND SERVICES FOR LEARNING AND STUDENT SUPPORT AND -ON THE OTHER HAND- FACILITATE DIRECT ACCESS TO THEM BY ESTABLISHING INTERNAL RULES TO THIS END (E.G. LECTURE ROOMS, LABORATORIES, LIBRARIES, NETWORKS, BOARDING, CAREER AND SOCIAL POLICY SERVICES ETC.).

Institutions and their academic units must have sufficient funding and means to support learning and academic activity in general, so that they can offer to students the best possible level of studies. The above means could include facilities such as libraries, study rooms, educational and scientific equipment, information and communications services, support or counselling services.

When allocating the available resources, the needs of all students must be taken into consideration (e.g. whether they are full-time or part-time students, employed or international students, students with disabilities) and the shift towards student-centred learning and the adoption of flexible modes of learning and teaching. Support activities and facilities may be organised in various ways, depending on the institutional context. However, the internal quality assurance ensures that all resources are appropriate, adequate, and accessible, and that students are informed about the services available to them.

In delivering support services the role of support and administrative staff is crucial and therefore they need to be qualified and have opportunities to develop their competences.

#### **Study Program Compliance**

The School of Dentistry facilities are very good, modern, and able to support high quality undergraduate education. All the clinical facilities, pre-clinical and clinical skills laboratories, seminar rooms and lecture halls are all well-equipped and in position to support the delivery of education. The Panel was impressed with the infection control requirements and systems in place following the pandemic, which ensures safety for students, patients, and staff members.

The Panel expressed also the view that the existing type and quality of research equipment, which is often accessible for undergraduate and postgraduate student research with correct training and supervision, is of high quality.

The library is adequate for the needs of the School and the students also benefit from a substantial and fully equipped central health sciences library. This central library is located in the middle of the campus is also available and open 24 hours every day. In addition, there is a plan for a new extensive library for the Faculty of Health Sciences.

The education is becoming student-centred with most of educational changes and opportunities for research participation planed with the interest if student in mind. There are mechanisms for students with disabilities for their support throughout the duration of the studies. There are also visiting international students visiting the school every year through collaborations and also using the ERASMUS mobility mechanism. This increases interactions of dental students with international colleagues further improving their experience overall.

Overall, the School of Dentistry is well maintained with clean and inviting facilities, both in the classrooms, clinics, and laboratories as well as in the associated spaces.

# **Panel Judgement**

Principle 6: Learning Resources and Student Support	
Fully compliant	Х
Substantially compliant	
Partially compliant	
Non-compliant	

- It is advisable the regrouping of all research facilities in one common space. This will greatly facilitate the interactions between students and the various Departments of the School.
- Continue requesting investment of funds for enhancement of wed-based local and global educational activities from the Ministry.
- Organize more student-driven events throughout the year such as an annual research day, case-based learning presentations and discussion, video-conference teaching and global education activities.

# **Principle 7: Information Management**

INSTITUTIONS BEAR FULL RESPONSIBILITY FOR COLLECTING, ANALYSING AND USING INFORMATION, AIMED AT THE EFFICIENT MANAGEMENT OF UNDERGRADUATE PROGRAMMES OF STUDY AND RELATED ACTIVITIES, IN AN INTEGRATED, EFFECTIVE AND EASILY ACCESSIBLE WAY.

Institutions are expected to establish and operate an information system for the management and monitoring of data concerning students, teaching staff, course structure and organisation, teaching and provision of services to students as well as to the academic community.

Reliable data is essential for accurate information and for decision making, as well as for identifying areas of smooth operation and areas for improvement. Effective procedures for collecting and analysing information on study programmes and other activities feed data into the internal system of quality assurance.

The information gathered depends, to some extent, on the type and mission of the Institution. The following are of interest:

- key performance indicators
- student population profile
- student progression, success and drop-out rates
- student satisfaction with their programme(s)
- availability of learning resources and student support
- career paths of graduates

A number of methods may be used for collecting information. It is important that students and staff are involved in providing and analyzing information and planning follow-up activities.

#### **Study Program Compliance**

The Panel considered the following:

Various key performance indicators were presented to the Panel members. It was clear that the School has improved significantly since the last valuation and is growing in reputation. performs exceptionally well and probably 'punches above their weight'. This is evident from constantly increasing trend in citations and the comparable h-index with similar size Dental Schools in Europe. Also, and very critically, the School has increased the funding from external sources either through European grants (e.g. Horizon) or collaborations with international Universities (e.g. Egypt). Several research areas and academic staff are world leading and renowned for their expertise.

The ratio of female to male students is 60% to 40%.

The vast majority of students (80% to 94% the last few years) graduate within the five and a half-year period. The remaining students graduate either within an additional year or two additional years. There is small number of 'long-term' students that remain registered.

The School of Dentistry has established mechanisms for collecting and analysing information regarding student satisfaction including a detailed questionnaire. A comprehensive list of all units was presented to the Panel with individual evaluation. Overall, the students seem to be very satisfied. The number of students engaging in this process varies between years and units.

In some cases that the numbers are very low (10%), it is not possible to reach a definitive conclusion. There are adequate learning resources and support provided to students in order to complete their course.

# **Panel Judgement**

Principle 7: Information Management	
Fully compliant	X
Substantially compliant	
Partially compliant	
Non-compliant	

- Maintain interactions with international Universities and increase links and collaborations with leading Dental Schools worldwide.
- Increase exposure in relevant international conferences.

# **Principle 8: Public Information**

INSTITUTIONS SHOULD PUBLISH INFORMATION ABOUT THEIR TEACHING AND ACADEMIC ACTIVITIES WHICH IS CLEAR, ACCURATE, OBJECTIVE, UP-TO-DATE AND READILY ACCESSIBLE.

Information on Institution's activities is useful for prospective and current students, graduates, other stakeholders and the public.

Therefore, institutions and their academic units provide information about their activities, including the programmes they offer, the intended learning outcomes, the qualifications awarded, the teaching, learning and assessment procedures used, the pass rates and the learning opportunities available to their students, as well as graduate employment information.

#### **Study Program Compliance**

The School of Dentistry has a dedicated website that provides extensive information on all relevant aspects. Regarding their program, there are specific and clear sections for Undergraduate, Postgraduate Taught (Masters) and Postgraduate Research (PhD) studies. The Undergraduate program is subdivided into semesters (two per year). Each semester contains detailed information for each course including their equivalent ECTS and also a web-link that the students can follow for e-learning. The latter is indicative of adaptive learning comparable to leading Universities worldwide. Each unit is extensively described with intended learning outcomes, the content, how it is evaluated and with the relevant bibliography that it is essential for the students in order to successfully complete their studies.

The students are very well prepared for future employment. There is a dedicated unit that relates to setting up and running of a dental practice that even includes information like tax advice. Additionally, the students have the option to visit several dental practices and gain first-hand experience from their colleagues (full practicing dentists). The success of these initiatives is evident by the fact that more than 75% of graduates find employment within 12 months, while a further 10 % opts for postgraduate studies.

The information provided to students regarding their courses or any recent developments (e.g. Covid) is up-to-date. However, the website is not that informative in several areas, for example the teaching staff. Overall, it feels outdated and not that welcome to visitors. A major overhaul is needed. Retired staff should be on a separate section (if any) and not in the same part with existing staff. It is crucial to provide up-to-date information regarding their publications, engagement with research, international collaborations etc. Some information like 'link to society' is difficult to find and provides minimalist information. In general, the Dental School has a wide range of activities that is not visible on the website. A level of 'self-promoting' is recommended.

There are specific sections for Academic, Professional Support Staff, and Experimental/Training Officers, including Emeritus and Honorary Professors. Contact details (phone number and email address) are included for all staff. Academics have a section that includes their qualifications, awards and key publications. A version in English is also available albeit limited since parts are still presented in Greek.

# **Panel Judgement**

Principle 8: Public Information	
Fully compliant	
Substantially compliant	Х
Partially compliant	
Non-compliant	

- The Panel suggests a significant overhaul of the website with a fresh design more appropriate to 2021 layout. That includes tabs, images, font type, font size, spacing, etc.
- The website needs to be maintained with frequent updates, particularly regarding academic achievements (awards, publications, conference presentations), to maximize visibility and raise the profile internationally. In particular, there could be a link to PubMed, Google Scholar, Scopus etc for each member of staff.
- The section in English must be completely in English and equivalent to the Section in Greek.
- There should be a main section on impact to society to highlight the various and extensive activities by the Dental School.

# **Principle 9: On-going Monitoring and Periodic Internal Review of Programmes**

INSTITUTIONS SHOULD HAVE IN PLACE AN INTERNAL QUALITY ASSURANCE SYSTEM FOR THE AUDIT AND ANNUAL INTERNAL REVIEW OF THEIR PROGRAMMES, SO AS TO ACHIEVE THE OBJECTIVES SET FOR THEM, THROUGH MONITORING AND AMENDMENTS, WITH A VIEW TO CONTINUOUS IMPROVEMENT. ANY ACTIONS TAKEN IN THE ABOVE CONTEXT SHOULD BE COMMUNICATED TO ALL PARTIES CONCERNED.

Regular monitoring, review and revision of study programms aim to maintain the level of educational provision and to create a supportive and effective learning environment for students.

The above comprise the evaluation of:

- the content of the programme in the light of the latest research in the given discipline, thus ensuring that the programme is up to date;
- the changing needs of society;
- the students' workload, progression and completion;
- the effectiveness of the procedures for the assessment of students;
- the students' expectations, needs and satisfaction in relation to the programme;
- the learning environment, support services and their fitness for purpose for the programme

Programmes are reviewed and revised regularly involving students and other stakeholders. The information collected is analysed and the programme is adapted to ensure that it is up-to-date. Revised programme specifications are published.

#### **Study Program Compliance**

There is regular and rigorous monitoring of the Undergraduate program. The School has appointed an internal assessment committee (OMEA), comprising of eight academics and one member for administrative support. During our evaluation we had the opportunity to meet and interact with all OMEA members. The Panel is fully satisfied that there is regular monitoring and the outcomes for each year are clearly displayed in the School's website. The composition of OMEA is appropriate and representative of the different areas within the School of Dentistry.

Regarding the specific points of evaluation:

The Panel believes that there is commitment from the Faculty members to include clinical or basic research in their teaching (3D printing, CAD/CAM, Laser, microscopes). Also, there is a substantial effort to interact with other Universities and/or leading experts in Dentistry (as evident from invites to several Professors from European Universities to deliver key lectures) in order to enhance the students, experience and be updated on the latest developments. This was evident predominantly in the postgraduate programmes but also in the undergraduate programme. Several students, during the Zoom meeting, expressed their eager to engage themselves and participate in either basic science or clinical research and also to take advantage of exchange programmes like Erasmus to gain experience abroad. The graduates also supported this vision during our Zoom meeting.

The School provides primarily dental care to over 5000 patients annually and is the main point of call in Northern Greece for stomatology and oral maxillofacial cases. Also, the School exclusively trains all military dental personnel for Greece and as a result has close links with the Army Dental Office.

The student's workload seems manageable and there was no dissatisfaction from the students. All students were very happy with the facilities and the fact that they were working in small teams. The School has updated a lot of the clinical facilities and is in the process of further updating all of them incorporating recent developments in Dentistry such as Laser and CAD/CAM.

The procedures for the assessment of students are effective, evident from the high proportion of students graduating on time (5 ½ years) with the appropriate qualifications. The Panel thinks that an increase of formative assessment with concomitant reduction of summative assessment will be beneficial to the curriculum.

Students' expectations, needs and satisfaction in relation to the program have been successfully addressed. The School should be commented for managing a particularly challenging situation under Covid-19 that affected Dentistry disproportionately compared to other subjects. Despite that, strong leadership and internal commitment allowed the students to graduate effectively, surpassing the expectations. In fact, the students were very pleased with the small group allocation due to Covid.

The Panel had the opportunity to assess the learning environment through an online video presentation. The facilities fulfil both clinical and research requirements. Certain aspects could be further improved. For example, the library space could greatly benefit from more working stations where students could work with their personal computers. The Panel is pleased to hear that there is ongoing support from the AUTH to realize further changes.

# **Panel Judgement**

Principle 9: On-going Monitoring and Periodic Internal Review of Programmes	
Fully compliant	Х
Substantially compliant	
Partially compliant	
Non-compliant	

#### **Panel Recommendations**

- Efforts should be made to embed research in as many aspects of teaching possible. Emphasis should be given to Evidence Based Dentistry.
- Improve Wi-Fi access and encourage students to use their personal computers.

# **Principle 10: Regular External Evaluation of Undergraduate Programmes**

# PROGRAMMES SHOULD REGULARLY UNDERGO EVALUATION BY COMMITTEES OF EXTERNAL EXPERTS SET BY HAHE, AIMING AT ACCREDITATION. THE TERM OF VALIDITY OF THE ACCREDITATION IS DETERMINED BY HAHE.

HAHE is responsible for administrating the programme accreditation process which is realised as an external evaluation procedure, and implemented by a committee of independent experts. HAHE grants accreditation of programmes, with a specific term of validity, following to which revision is required. The accreditation of the quality of the programmes acts as a means of verification of the compliance of the programme with the template's requirements, and as a catalyst for improvement, while opening new perspectives towards the international standing of the awarded degrees.

Both academic units and institutions participate in the regular external quality assurance process, while respecting the requirements of the legislative framework in which they operate.

The quality assurance, in this case the accreditation, is an on-going process that does not end with the external feedback, or report or its follow-up process within the Institution. Therefore, Institutions and their academic units ensure that the progress made since the last external quality assurance activity is taken into consideration when preparing for the next one.

#### **Study Program Compliance**

The School of Dentistry had an external evaluation in July 2011 by a Panel of five expert evaluators. The previous review found significant strengths including admirable creativity, adaptation to an increasingly challenging financial environment, and problem-solving capability. Also, there was excellent academic standing of the students admitted to its undergraduate and graduate programs; a number of talented and committed faculty and teaching staff that can form an adequate 'critical mass' under the right circumstances; and its dedicated administrative staff. The Panel also provided some recommendations on issues that could be improved.

These recommendations included suggestions to merge departments and minimize segregation between different dental specialties, engage in innovative research and utilise research facilities that despite possessing advanced equipment they remained largely unused.

The School of Dentistry provided a response to the 2011 evaluation, and an update to what has been accomplished and achieved since then. They also provided reasons for rejecting / not implementing some of the recommendations in the area of the curriculum. Notable changes and accomplishments include:

- Thorough rearrangement of Dental School with fewer, larger and non-territorial academic units. The School reorganised extensively and merged units resulting in fewer, larger and more manageable Departments.
- Support the ECTS system and embrace the Erasmus programme. The School has adopted the European Academic Credit System (ECTS) and strongly supports ERASMUS.
- Have a strategic, interdisciplinary research plan that builds on its current strengths. The School is excelling in this area. It has active links with Medicine, Biology, Engineering, Informatics etc. Also it has close links with other institutes such as Biomedical Sciences, University of West Attica.

- Enhance its presence and visibility in the community. The School is collaborating with leading experts and Dental Schools. Also, it has important links with Dental Industry and through the continuous education programmes it interacts with all dentists in northern Greece and ensures their development.
- Exploit all entrepreneurial opportunities to increase its funding. Again this is an area that the School has improved dramatically and embraced the previous recommendations. It attracts significant grant funding and also explores other areas like consultancy with the University of Cairo, Egypt on undergraduate curriculum development and dental industry grants on new products.
- Contemporary system of ongoing evaluation and quality assurance at all aspects of its activities. Since 2012 there is a fully electronic system that evaluates facilities, teaching etc.
- Introduce an internal evaluation system. Most of the recommendations were implemented soon after they were proposed. An internal evaluation system (OMEA) is in place and is fully functioning.
- Definition of the expected contribution from each full-time academic staff. This is perhaps an area that is not fully addressed. On the other hand, the School is currently understaffed and evident that each Faculty member is contributing more than is expected of them.

The School indicated that they have adopted most of the recommendations of the previous (2011) evaluation.

The Panel met with a range of undergraduate students, across all years, and with graduates.

The Panel strongly believes that the School offers a top-quality undergraduate program that forms high calibre graduates (dentists). Since the last evaluation, the Institute has significantly improved and benefited from the comments of the previous Panel members. The School is in the right trajectory and is fortunate to actually benefit from a strong leadership within and has close links and support from the Medical School and the main University.

The Panel members are aware that the very significant increase of the student numbers (almost double of the requested by the School of Dentistry) is the result of not assessing and valuing correctly the justified Dental School's continuous requests to the State (Ministry of Education). Furthermore, the drastic decrease of the number of Faculty members since the previous evaluation (2010) adds to this problem and do not resolve issues. There is a clear pressure of the State (ministry of Education) to increase the quantity of incoming students by maintaining a system which continuously tops up the official number of students that the School of Dentistry requests. This will ultimately compromise the quality of the undergraduate education in favour of the quantity of students. The Panel members support the idea to significantly increase the Faculty members and administrative personnel and reduce considerably the number of undergraduate students in order to maintain and even increase the actual quality of education.

Finally, the Panel wishes to acknowledge the full cooperation of all members of staff involved. They were friendly and accommodating to any request by the Panel. They were receptive to our suggestions during the discussions and provided accurate and in-depth information for all relevant areas. They had clearly updated materials and the website to be available for the

review. Moreover, during the sessions with the Panel members, they were knowledgeable and responsive to all questions asked.

#### **Panel Judgement**

Principle 10: Regular External Evaluation of Undergraduate Programmes	
Fully compliant	Х
Substantially compliant	
Partially compliant	
Non-compliant	

- Keep assessing the curriculum in order to be up-to-date and include some of the latest developments in Digital Dentistry, Nano-Dentistry and Regenerative Dentistry.
- Improve website.
- Update bibliography in the different units to include the latest developments. Adopt a more dynamic approach and rather than rely on one textbook in each unit, include research papers as well.
- Improve staff / student ratio.
- Formulate a unified research strategy. Perhaps appointing a Research Director can help and strengthen research areas that are deemed under risk due to Faculty members retirement.
- Given the fact that regular evaluations appear to take place at long intervals (10 years have passed since the last visiting group), the School could implement interim informal evaluations as it did in the past. These evaluations could be general, or they could pertain to specific questions or laboratories.
- Merge the remaining Departments (e.g. Stomatology).

#### **PART C: CONCLUSIONS**

#### I. Features of Good Practice

- There is strong effort, willingness and enthusiasm by the School and AUTH to comply with evaluation procedures.
- The Faculty is proactive, dedicated, enthusiastic in dealing with the teaching duties and most of the Staff is involved in quality research activities.
- Faculty members are successfully involved in research grant applications that facilitate the smooth functioning of the School.
- Faculty members are involved in the Horizon 2020 research grants and other similar consortia.
- 37 funded or co-operational in conjunction with foreign universities programs.
- 8 research awards related to research projects.
- Clear articulation of the School's strategic plan with target objectives over the next ten years.
- Staff mobility (sabbaticals).
- There is not 'inbreeding' in the Faculty.
- The new curriculum follows recommendations from the previous evaluation and efforts are being made for continuously improving and excelling in teaching and research.
- The gender balance is not yet ideal, but the principle of gender equality is accepted and promoted.
- The needs of students with physical disabilities are accommodated.
- There is a strong awareness of the importance of research impact.
- The teaching facilities are appropriate, with large and medium size lecture halls, well-managed spaces for clinics, laboratory practical courses, and research laboratories.
- The spaces are clean.
- The equipment for the dental clinics, practical courses for the undergraduate students and the research laboratories is modern and of high quality.
- There is strong effort for public engagement.
- There is a satisfactory rate of mobility of students and Staff with Erasmus.
- A common library with all Heath Science Departments will be soon realised.
- Successful and functional digitization process in the clinics. This data base could be used for clinical research in the future.
- Stakeholders showed great interest in pursuing further existing academic / industrial partnerships with the School.
- Identification by the Staff of academic, public and private partners who contribute to the academic and economic impact, as well as the visibility of the School.
- Several social partners and public stakeholders are identified and engaged, resulting in the continuous development of the School.
- The function of the administration office is satisfactory.

- Looking for the appointment of new Faculty members with strong CVs and the ability to attract starting research funding.
- There is a Facebook group from the students (OFOIS) that is particularly active.

#### II. Areas of Weakness

- The website is not up-to-date.
- The scientific collaborations both in research and education with the Medical Faculty and other Departments of the AUTH should be strengthened, and therefore it should be a continuous effort from the Staff members to further develop these links.
- An alumni association does not exist. Thus, there is a need to create the School alumni's association, allowing connections, offering valuable perspectives to the students and Faculty, and increasing the visibility internationally.
- Digitization of old books and textbooks which should continue.
- More working stations (with wi-fi access).

# III. Recommendations for Follow-up Actions

The EEAP wishes to highlight the following actions:

- Fusions between the various small Units in order to create bigger Unities with comparable activities have been only partially realised (Prosthetics is a successful example). The School should increase these efforts towards fusions.
- Existing research should be encompassed in a unified Department in Biological/Material Sciences.
- The CVs of the Faculty members should be updated regularly and a more uniform format for all Faculty CVs should be considered. Also important is for all Faculty members to establish a Google Scholar profile and an ORCID registration number.
- The School should highlight and insist at the Ministerial level on the need to increase the number of Faculty members, decrease drastically the actual number of students' admission and guarantee a stable budget for a long time period. The proportion of Faculty members and students should be balanced (from a current 1:12 to an optimal 1:5), and the teaching and research activities should not be compromised. A well-regulated number of dental students at entry is of paramount importance for the safe calculation of: a) the student/Faculty member ratio; b) the education cost per student. We consider this to be crucial for sustainable growth and safeguarding the educational output. The associated calculations need to be carried out and presented by the School. The State must facilitate and adopt this initiative and has to realize that this is a unique situation concerning Dentistry.

- Research activities and orientation plan on future research developments of the School should be clearly defined and monitored under the guidance of a Director of Research. A research committee could supplement this effort.
- Incorporate into the teaching evident links between clinical practice and research and also between dentistry and other disciplines such as medicine, pharmacy, nutrition, engineering, computer sciences, etc. in all aspects of teaching throughout the whole curriculum.
- Review and update the curriculum by offering courses dealing with actual clinical and societal needs (regenerative dentistry based on stem cells and gene therapy, nanodentistry based on nanotechnology and new dental materials elaboration, computational/imaging dentistry, bio-related dentistry, ethical and society issues in relation to dentistry, businesses management, critical appraisal of literature as a research based course, and courses to discuss industry needs among many other possibilities).
- Continue the effort to provide Teaching in English.
- Organization of career information days by the School allowing the interactions between all Faculty members, invited speakers and all students that will permit to familiarize the students with job opportunities other than the private praxis (academic or industrial career, opportunities in some biomedical fields etc.) involving the active participation of Faculty members and entrepreneurs/social partners.
- Increase the interaction and collaboration with other Departments of the Medical Faculty, Veterinary School, Engineering, Agronomy, Pharmacy, Nutrition, Computer Sciences, and complementary research institutes in Greece, including short research visits, new research transdisciplinary projects that involve undergraduate students and reciprocal participation in teaching/seminars, etc.
- Alumni association and connections with the School and within their cohort should be initiated through establishing a database with relevant details with appropriate web presence. This can also serve as a starting point for fundraising campaigns for specific projects (i.e., to fund student and faculty mobility and participation in research international conferences; purchase of specialized infrastructure, etc.).
- Implementation of interim informal School evaluations of research activities. Establishment of an annual research day where faculty and students will present their research projects and faculty and students from other units and schools will be also invited to hear presentations. A guest person could also be invited to offer a keynote talk and general dental practitioners could also attend and gain a continuous education credit.
- Encouragement and reward of outstanding students by adopting School prizes for their performance across student cohorts (Dental prize).
- Encouragement of continuing invitation of external Professors to visit the School to teach and/or be involved in research. The actual Zoom platform offers possibilities to held courses for undergraduate students from abroad.
- Regrouping all research facilities in one common and shared space that also includes a meeting room where presentations and informal discussion can take place. This will greatly facilitate the interactions between students and the various Departments of the School.
- Regular updates of the Staff profiles on existing web platforms.

- Inclusion of a dental students educational summer camp, where selected students from Greece and abroad will exchange scientific and professional information and activities for a one-week period. An AUTH site exists, and the vice-rector could help for the realisation of this project. This must be one of the priority plans of the University.
- Communication should also be enhanced by terms of webpage, email and social media communications, electronic newsletter in Greek and English to be distributed to all faculty and students and alumni but also in the wider community and collaborators world-wide. This may further help with possible fundraising campaigns to support innovative teaching and research activities.
- The gender balance between Faculty members has improved during the last years but should still improve.

# IV. Summary & Overall Assessment

The Principles where full compliance has been achieved are: 1, 2, 3, 4, 5, 6, 7, 9, and 10.

The Principles where substantial compliance has been achieved are: 8.

The Principles where partial compliance has been achieved are: None.

The Principles where failure of compliance was identified are: None.

Overall Judgement	
Fully compliant	Х
Substantially compliant	
Partially compliant	
Non-compliant	

# The members of the External Evaluation & Accreditation Panel

Name and Surname Signature

# 1. Prof. Efthimios Mitsiadis (Chair)

University of Zurich, Switzerland

# 2. Prof. Fani Anagnostou

University of Paris, France

# 3. Prof. Petros Papagerakis

University of Saskatchewan, Canada

# 4. Prof. Nikolaos Silikas

University of Manchester, United Kingdom

#### 5. Dr. Athanasios Devliotis

President of the Hellenic Dental Association, Greece