

Akkreditierungsagentur  
im Bereich Gesundheit und Soziales  
Accreditation Agency in Health and Social Science



## **Assessment Report**

**for the Application of  
Umm Al-Qura University, Mecca, Saudi Arabia,  
College of Dentistry  
for the Accreditation of the Bachelor Study Program  
“Dentistry”(Bachelor of Dental Medicine and Surgery, B.D.S.)**

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## 1 Introduction

The Accreditation Agency in Health and Social Sciences (the AHPGS) is an interdisciplinary, multi-professional organization. Its mission is to carry out quality assurance procedures regarding study programs, as well as Higher Education Institutions, in the fields of health and social sciences and in related domains. By implementing quality assurance procedures, the AHPGS contributes to the improvement of the overall quality of teaching and learning.

Starting from 2009, the AHPGS is listed in the European Quality Assurance Register (EQAR). Since 2004 the AHPGS has been a member of the European Consortium for Accreditation (ECA). In 2006, the AHPGS also joined the European Association for Quality Assurance (ENQA) and became a member of the International Network for Quality Assurance Agencies in Higher Education (INQAAHE) in 2009. Since 2012, the AHPGS has been a member of the Network of Central and Eastern European Quality Assurance Agencies in Higher Education (CEENQA).

Umm Al-Qura University has commissioned the AHPGS to carry out the assessment and accreditation of the bachelor study program “Dentistry”.

Study programs of Umm Al-Qura University, Mecca, Kingdom of Saudi Arabia, are required to be accredited by an international accreditation agency according to the decision of the University.

The accreditation criteria of the AHPGS are the basis for the accreditation decision. These criteria can be found on the webpage of the AHPGS<sup>1</sup>. The Accreditation Criteria are developed by the AHPGS in close accordance with the existing criteria and requirements valid in the Federal Republic of Germany and based on the “Standards and Guidelines for Quality Assurance in the European Higher Education Area” (ESG), established by the European Association for Quality Assurance in Higher Education (ENQA).

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<sup>1</sup> <http://ahpgs.de/english/program-accreditation/>

The accreditation procedure is carried out in four steps:

### **I. University's application**

The AHPGS verifies the sufficiency of the application documents submitted by the University, namely the Self-Evaluation Report and its corresponding annexes. These are to fulfill the assessment spheres, as well as the AHPGS standards. As a result, the AHPGS produces a summary (see below), which is to be approved by the University, and subsequently made available for the expert group, together with all other documentation.

### **II. Written review**

Parallel to the first step, the main documents are reviewed by the expert group nominated by the Accreditation Commission of the AHPGS. This is done in order to verify the compliance of the study program with the applied accreditation criteria.

### **III. On-site visit (Peer-review)**

The experts carry out the on-site visit at the University. In the course of the on-site visit, the expert group holds discussions with various members of the University, including the University and college administrative representatives, the program management, teaching staff and a group of students. Such extensive discussions provide the expert group with additional information and a better insight into the structure and content of the program.

The task of the experts during the on-site visit is to verify the rationality of the program's objectives and learning outcomes and their correspondence to the needs of the current and expected labor market situation, to evaluate the sufficiency and effectiveness of the teaching staff, material resources, and methods of assessment (admission requirements, assessment of achievements, students' support), as well as of the program management (program administration, internal and external assurance of study quality).

Following the on-site visit, the expert group issues the expert report for the study program. This is based on the results of the on-site visit, the documents submitted by the University and the experts' considerations based on these documents. The expert reports are made available to the University for it to issue a response opinion.

The expert report, as well as the University's response opinion – together with the application documents – is submitted to the Accreditation Commission of the AHPGS for the final decision.

#### **IV. Accreditation decision**

The Accreditation Commission of the AHPGS examines the documentation made available, namely the University's application documents, the summary comprised by the AHPGS, the Expert Report and the University's response opinion. These documents represent the basis for the decision of the Accreditation Commission of the AHPGS, which can be formulated in three ways: accreditation, accreditation with conditions or denial of accreditation.

## 2 Overview

### 2.1 Procedure-related documents

Umm Al-Qura University (hereinafter “the University”) assigned the AHPGS to carry out the accreditation procedure for the following study programs: “Dentistry”, “Bachelor of Pharmacy”, “Doctor of Pharmacy” and “Medical Bachelor and Bachelor of Surgery”.

The University submitted the Self-Evaluation Report and the relevant annexes of the bachelor study program “Dentistry” to the AHPGS in electronic format on 19 April 2015. The contract for the assessment and the accreditation of the study program (without the awarding of the official seal of the Accreditation Council of the Foundation for the Accreditation of Study Programs in Germany) was signed by the University and the AHPGS on 18 January 2016.

On 11 December 2015, the AHPGS forwarded the open questions and explanatory notes (OQ) pertaining to the application documents of the study program to the University. On 8 January 2016, the University submitted the answers to the open questions and explanatory notes (AOQ) to the AHPGS in electronic format.

This document presents the summary of the study program “Dentistry” prepared by the AHPGS. The first cohort of students was admitted to the program in the academic year 2009/2010.

The Self-Evaluation Report submitted by the University follows the outline recommended by the AHPGS. Along with the Self-Evaluation Report, the University provided the following documents specific to the program “Dentistry”:

<b>Annex</b>	<b>Description</b>
<b>1</b>	Executive summary of the program “Dentistry”
<b>2</b>	Study plan of the program “Dentistry”
<b>3</b>	Module overview of the program “Dentistry”
<b>4</b>	Module/course description
<b>5</b>	Research courses integrated in the current curriculum of the program
<b>6</b>	Description of the structure and competencies of the program “Dentistry”
<b>7</b>	Final exams 2014-2015; exam flow
<b>8</b>	Regulations for exams
<b>9</b>	Written exam regulations
<b>10</b>	Dental internship logbook 2015-2016
<b>11</b>	Dental Internship Training Program 2015-2016; general policies

12	Schedule for training on the learning resources
13	Dental Internship Training Program Guidelines 2015-2016
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23	A survey on the course for student evaluation
24	List for organized financial affairs in UQU
25	Academic Development and Quality Unit: structure and duties
26	Academic mentoring in electronic form

Table 1: Documents specific to the study program "Dentistry"

Alongside the study program-specific documents, the following documents pertain to all study programs submitted for the external evaluation:

Annex	Description
A	Executive rules at Umm Al-Qura University; Bylaws organizing academic affairs and study in medical colleges; Regulations of study and examinations of undergraduate phase
B	Program learning outcomes: Guidelines for program development and review of the National Commission for Academic Accreditation and Assessment
C	Guideline of professional classification and registration for health practitioners of the Saudi Commission for Health Specialties
D	National qualifications framework for higher education in the Kingdom of Saudi Arabia, National Commission for Academic Accreditation and Assessment
E	Saudi Teaching Staff Members Employment List in UQU
F	Non-Saudi Teaching Staff Members Employment List in UQU
G	Sample of a general secondary school transcript

Table2. Documents common for all study programs

The Summary, the Expert Report as well as the resolution of the Accreditation Commission build the basis for the present Assessment Report.



## 2.2 Study program

### 2.2.1 Structural data

University	Umm Al-Qura University	
College/Department	College of Dentistry	
Title of the study program	"Dentistry"	
Degree awarded	Bachelor of Dental Medicine and Surgery, B.D.S	
Form of studies	Full-time	
Language of instruction	English	
Period of education	7 years (1 preparatory year+5 years of studies+ 1 year of internship)	
Total number of credit hours	293 credit hours	
Study hours/credit hours <sup>2</sup>	1 lecture = 1 credit hour 2 laboratory hours/practical sessions = 1 credit hour	
Workload	Total:	11,471 hours
	Theoretical activities:	3,105 hours
	Practical activities:	1,110 hours
	Clinical activities:	1,515 hours
	Self-study hours:	4,350 hours
	Internship:	1,391 hours
Beginning of the study program	Academic year 2009/2010	
Time of admission	Winter semester	
Number of available places on the program	45 places for female and 45 places for male students	
Number of enrolled students	in 2014/2015 (to the 2 <sup>nd</sup> year of studies) 37 female students and 32 male students	
Number of graduates	The first of graduates is expected in the academic year 2016/2017	
Particular enrollment Conditions	To be admitted to the preparatory year: - a high school certificate with at least 90% of performance; - at least 90% of performance in such subjects as	

<sup>2</sup> Credit hours are calculated based on the contact hours for one week.

In order to calculate the so-called 'points' for one course, students' grade for this course is multiplied by the number of credit hours.

	<p>English, Chemistry, Physics and Biology;</p> <ul style="list-style-type: none"> <li>- Ability and Achievement test;</li> <li>- Physical and mental fitness.</li> </ul> <p>To be admitted to the 2<sup>nd</sup> year of the program: Completion of the preparatory year with high marks.</p>
Tuition fees	No fees; all students receive monthly financial support of 1,000 SAR (Saudi Riyal), which is equal to 245 EUR

Table 3: Structural data of the study program “Dentistry”

According to the *Guidelines for Program Development and Review* determined by the Saudi Arabian National Commission for Academic Accreditation and Assessment (NCAAA), higher education programs in dentistry must provide theoretical knowledge and practical skills corresponding to the bachelor’s degree. They have to combine academic study, practical training and substantial supervised clinical experience (Annex B, page 17).

Based on these national requirements, the bachelor study program “Dentistry” consists of three two main stages: 1) the first year of studies called ‘the preparatory year’, 2) the main period of studies lasting from the second till the sixth year of studies, and 3) the internship year. In total, the study program has 59 courses during the period of studies at the University.

Students, who want to study in one of the health care-related study programs of the University, have to complete a preparatory year. The University offers a preparatory year, which has been designed specifically for students who want to pursue studies in one of the following specializations: Dentistry, Medicine, Pharmacy, Applied Medical Sciences, Public Health and Health Informatics, and Nursing.

Thus, students who want to be in the program “Dentistry” attend a preparatory year in their first year of studies. This year is aimed to develop students’ spoken and written English language skills, to introduce them to the health care profession, to provide them with basic knowledge in physics, biochemistry, genetics, and cell physiology, and to improve their learning skills as well as computer application skills.

The preparatory year of the program “Dentistry” consists of ten courses, which is equal to 17% of the whole curriculum.

The main period of studies in the program lasts from the second to the sixth year and consists of 49 courses, which can be grouped into the following types:

- University and college requirement courses, such as “Holy Quran”, Islamic Culture”, “Prophet Profile”, and “Arabic Language”. The program has ten of such courses and they constitute 17% of the whole curriculum.
- Program-specific courses, which focus on the learning outcomes and professional objectives of the study program. The program has 39 of such courses and they constitute 66% of the whole curriculum. They are taught during the main period of studies.

One-year internship in the Dental Internship Training Program (DITP) constitutes the third and the last stage of the program. Students can start this training year after having completed all courses. According to the University, extensive dental training is mandatory to be eligible to practice dentistry in the Kingdom of Saudi Arabia. Upon the completion of the internship year, students receive the academic title “Bachelor of Dental Medicine and Surgery” as well as the certificate on the completion of the one-year Dental Internship Training Program (Annex 11).

In Saudi Arabia, all health practitioners are required to pass the licensing examination in their respective specialties in order to have the right to work in the country. The licensing examinations are carried out by the Saudi Arabian Commission for Health Specialties (SCHS).

According to the *Guidelines of Professional Classification and Registration for Health Practitioners*, graduates with a bachelor’s degree in dentistry and a certificate of one-year internship can apply for a licensing examination to be acknowledged as general practitioners (Annex C, pages 11-13). For that, graduates of the program “Dentistry” submit an application and a list of necessary documents, which are then reviewed by a specialized consultant and, if necessary, by a specialized committee (Annex C, page 14-15). Upon submitting the documents, program graduates can request a temporary registration for six months until they receive the final registration issued by the SCHS.

### **2.2.2 Qualification objectives and employment opportunities**

According to the University, the main objective of the program “Dentistry” is to prepare dentists who reveal medical proficiency and competence as well as commitment to Islamic morals. The program aims to educate professionals to serve the needs of the region of Mecca and of the country in general. The program graduates are expected to be able to:

- provide effective, appropriate and independent patient care within the scope of general dentistry,
- maintain a safe and infection-controlled environment,

- practice appropriate consultations related to patient's comprehensive medical history,
- verify medications allergies and changes in patient's health status,
- maintain patient's records in complete and accurate forms following the established clinic protocols,
- maintain confidentiality of all patient health information following ethical professional practice,
- demonstrate compassion, empathy, integrity, responsibility and tolerance, respecting patient and community values and priorities,
- evaluate the continuous ongoing developments in dental and medical disciplines,
- recognize the various features of medico-legal aspects of the dental profession,
- engage in continuous professional development and lifelong learning,
- carry out tasks to the prescribed time limits,
- make decisions based on moral and scientific principles.

With regard to knowledge obtained in the program, students must be able to assess patients' medical and dental history, differentiate signs, symptoms, and related risk factors that require consultation and/or referral to a physician or other professionals, explain the relationship between general health and oral health, and estimate risk factors for head and neck cancer and other. In terms of cognitive skills, the program enables students to determine treatment priorities, explain the role of systematic planning in solving problems, evaluate and apply the clinical, radiographic, and other diagnostic information and procedures, estimate the effects of medications taken by patients, arrange the design and proper methods of scientific research etc. (for more details on graduate's abilities, see Annex 6).

In addition, students acquire the skills of professional communication with patients and colleagues in dental medicine as well as other health care personnel. They learn to work in team and to demonstrate collaboration and leadership practices. Moreover, students must be able to work with statistical and data saving programs and technical equipment (Annex 6).

According to the University, the program graduates can be divided into three groups depending on whether they: 1) pursue an academic career, 2) start working in non-academic governmental institutions, or 3) choose a private career path. Graduates of the first group apply for governmental or private dental colleges established within the country, where they continue their postgraduate studies while at the same time working as demonstrators. Graduates of the second group decide to join the Ministry of Health or other governmental institutions, such as military hospitals, the National Guard Hospital or the Security Forces Hospital,

where they can work as general practitioners or do the residency program. Graduates of the third group choose to commence their own dental clinic or center, or to start working as independent general practitioners in private hospitals, dental centers and companies (AOQ Dentistry 14).

According to the University, there were 4.11 dentists per 10.000 citizens of the country in 2014. Due to the current lack of dentists in Saudi Arabia, the University is confident that the program graduates are highly demanded in the national labor market. The College of Dentistry is planning to offer an explanatory lecture in the second half of the academic year 2015/2016 about the employment opportunities of the program graduates (AOQ Dentistry 15).

The first batch of graduates of the program is expected in the academic year 2016/2017.

### 2.2.3 Structure of the study program and exam system

The bachelor study program “Dentistry” consists of three main stages: the preparatory year, the main period of studies and the internship year. The program has in total 59 courses, ten of which are taught in the preparatory year and 49 in the main period of studies, which lasts from the second to the sixth year. Out of these 49 courses, ten are university requirement courses and 39 are program-specific courses.

The preparatory year courses focus on basic medical competences, the English language, as well as computer and learning skills. During the main period of studies, students attend two types of courses: 1) University requirement courses, which include “Holy Quran”, “Islamic Culture”, “Arabic Language” and “Prophet’s Life”, and 2) program-specific courses, which are offered by different departments of the College of Dentistry.

All courses are mandatory, there are no elective ones. Each semester consists of 14 weeks. The program is offered only in a full-time form. Students of the program have to obtain the total amount of 293 credit hours.

The preparatory year of the program consists of the following courses:

Year	Title	Credit Hours
Prep. year	Basic Biochemistry (1)	2
	Basic Genetic	2
	English Language	6

	Computer Skills (1)	2
	Learning Skills	3
	Cell Biology (named also "Cell Physiology")	3
	Basic Biochemistry (2)	2
	Computer Skills (2)	3
	Medical Physics	4
	Medical English	4
<b>Total credit hours for the 1<sup>st</sup> year</b>		<b>31</b>

Table 4: Study plan of the preparatory year

The main period of studies lasts from the second to the sixth year of studies and contains the following courses (Annex 2):

<b>Year</b>	<b>Title</b>	<b>Credit Hours</b>
<b>2</b>	Holy Quran (1)	2
	Islamic Culture (1)	2
	Head and Neck Anatomy	5
	Human Genetics and Development	3
	Basic Medical Sciences (1)	18
	Islamic Culture (2)	2
	Holy Quran (2)	2
	Dental Anatomy	4
	Introduction to Oral Radiology	2
	Basic Medical Sciences (2)	20
<b>Total credit hours for the 2<sup>nd</sup> year</b>		<b>60</b>
<b>3</b>	Cariology (1)	11
	Applied Medical Sciences	4
	Holy Quran (3)	2
	Islamic Culture (3)	3
	Arabic Language	2
	Introduction to Clinical Experience	2
	Biostatistics	2
	Preclinical Periodontology	6.5
	Behavioral Management	2

	Holy Quran (4)	2
	Islamic Culture (4)	2
	Prophet Profile	2
	Preclinical Operative Dentistry and Biomaterials	10
	Oral Medicine (1)	10
<b>Total credit hours for the 3<sup>rd</sup> year</b>		<b>60.5</b>
<b>4</b>	Pain Control and Anesthesia	2
	Ethics and Professionalism	2
	Public Health (1)	2.5
	Oral Medicine (2)	7
	Cariology (2) and Operative Dentistry	7
	Clinical Periodontology	7
	Preclinical Endodontic	4
	Preclinical Removable Prosthodontics and Occlusion	7
	Preclinical Fixed Prosthodontics	7
<b>Total credit hours for the 4<sup>th</sup> year</b>		<b>45.5</b>
<b>5</b>	Nutrition	2
	Practice Management	2
	Basic Research Methodology	2
	Evidence Based Dentistry	2
	Research Methods in Oral Biology	2
	Pediatric Dentistry	7
	Oral Surgery (1)	5
	Removable Prosthodontics	5
	Comprehensive Care Clinic (1)	20
<b>Total credit hours for the 5<sup>th</sup> year</b>		<b>47</b>
<b>6</b>	Public Health (2)	2.5
	Dental Implantology	1.5
	Geriatric Dentistry	5
	Orthodontics	5
	Research Project	8
	Comprehensive Care Clinic (2)	22
	Oral and Maxillofacial Surgery (2)	5

<b>Total credit hours for the 6<sup>th</sup> year</b>	<b>49</b>
<b>Total credit hours for the whole program</b>	<b>293</b>

Table 5: Course overview of the program “Dentistry”

The University has provided the detailed description of the program courses, which includes information about the amount of envisaged credit hours, course instructors, completion requirements, learning objectives and outcomes, course topics, types of courses (lectures, seminars, laboratory sessions and other), self-study requirements, methods of assessment, the schedule of continuous and final examinations, grading scale, students support possibilities, learning resources and the description of course evaluation and improvement procedures (for more details, see Annex 4).

Methods of instruction in the program include lecture, presentation, problem based learning assignments and other. The didactic concept of the program is to enable interactive learning of students with gradual increase of their self-directed education abilities. Hence, the percentage of traditional lecturing methods has been reduced in the modified version of the program curriculum in order to provide more time for independent learning (Self-Evaluation Report 1.1.14).

With regard to the integration of electronic forms of teaching, the University informs that all lectures halls and PBL (problem-based learning) rooms are equipped with smart boards, projectors and multimedia connections. Didactic demonstrations are carried out with the help of photo images, videos and schematic explanations. Students can record their work in practical classes with the help of either phantom laboratory recording cameras or intraoral cameras. Furthermore, the program offers five online courses integrated in the curriculum: “Behavioral Management”, “Ethics and Professionalism”, “Evidence-Based Dentistry”, “Practice Management” and “Research Project” (Self-Evaluation Report 1.1.15).

Research is integrated starting with the third year and is further implemented in the program until the sixth year of studies through the following courses: “Introduction to Biostatistics”, “Public Health 1”, “Basic Research Methodology”, “Evidence Based Dentistry” and the final “Research Project” (for more details about the objectives of these courses, see Annex 5). Students obtain eight credit hours for the course “Research Project”, where they are required to complete a small research work involving 120 hours of workload. The learning outcomes of this course include the ability to design of a protocol, the competences to select and apply appropriate statistical methods of data analyses and to collect necessary medical information from on-line resources, skills to write a scientific paper and to commu-



nication with peers and academic superiors, as well as to present the obtained results in front of an audience (Annex 4).

The last stage of the program is the 12-month internship period, which takes part after the sixth year of studies.

According to the *Dental Internship Training Program Regulations*, the Dental Internship Training Program (DITP) is a prerequisite to become a recognized general dentist and be eligible to practice dentistry in the Kingdom of Saudi Arabia. Upon completion of the internship period, students receive a Bachelor of Dental Surgery Graduation Certificate and also a Dental Internship Training Program Completion Certificates sealed by the Faculty of Dentistry of Umm Al-Qura University (Annex 11).

The admission requirements of the DITP include a bachelor degree in Dental Surgery from Umm Al-Qura University or any other national or international university recognized by the Saudi Ministry of Higher Education. Graduates of Saudi universities other than Umm Al-Qura University have to pass an interview, whereas applicants from abroad need to pass a multiple choice test, an interview, a practical exam in Restorative Dentistry and Fixed Prosthetics, and an Objective Structured Clinical Exam (for more details, see Annex 13, pages 8-9). Finally, admission will depend on the availability of training posts in the program (for more details, see Annex 11, page 6).

The training year lasts from September to August. According to the Dental Internship Training Program Guide, at least six months of this period should take place at the premises of the University and the University Hospital, whereas the rest of the program is completed at the hospital of the Saudi Ministry of Health in Mecca and in Jeddah or at the Military Hospital (Annex 11 and 13).

The program consists of a clinical and an educational component. The clinical component incorporates two branches: internal (within the University) training and the hospital-based training, each lasting for six months. Internal training includes training in the following specializations: Oral Surgery, Dental Emergency and Screening, Paedodontics and Comprehensive Care Clinic (CCC). The hospital-based training is carried out in two or more governmental hospitals, and its focus is to expose students to different working conditions and improve their practical skills.

The educational component encompasses development of dental research skills, journal club activity, continuous dental education lectures, and community service. Students' research project is monitored by the representatives of the College of

Dentistry. Selection of a research topic, as well as the assignment of supervisors, is accomplished within the first month of the DITP (in September). After six months, dental interns have to prepare a poster and an oral presentation of their research achievements for the Research Day organized by the college in April (Annex 11, page 9).

The objective of the Dental Internship Training Program is to enable interns to perform dental services independently by the end of the training period. Hence, graduate dental interns are expected to be able to (Annex 11, page 5):

- improve their clinical skills and self-confidence that will be helpful in their clinical dental career,
- acquire needed clinical skills with concentration on medico-legal aspects and the ethics of this profession,
- demonstrate the necessary knowledge and skills for the organization and management of the successful practice,
- manage the psychological aspects of patient care,
- advance their knowledge and skills in the management of dental emergencies,
- work successfully as a member of a dental practice team,
- demonstrate working within the relevant guidelines of ethics and confidentiality of the General Dental Practice,
- demonstrate the development of research skills.

Each student has his or her own training log book in paper and electronic format. The log book contains the information about the dental training requirements of the University, a record of different training and learning activities performed by students, and a patient-based record of cumulative experience relevant to all areas of dental internship. Furthermore, a student log book provides a brief description of continuous education lectures and professional courses attended by students, their research activities, and community service projects (Annex 10).

There is a Dental Internship Coordinator (DISC) in every specialization rotation, whose function is to facilitate the communication between the different specialization divisions and the committee of the program. The coordinators are responsible for the implementation of the clinical training program within their specialization. At the end of each rotation, each dental intern has to fill out the training requirement form on the log book and have it signed by the respective coordinator. The organizational structure of training coordination committees is presented in the Training Program Guide (Annex 13, pages 6).

Interns' performance is evaluated both during the internal and hospital-based training periods, based on the same criteria, such as 'attendance and punctuality', 'clinical performance', 'attitude and professionalism', 'presentation', CME (continuing medical education), 'research' and 'community research'. In the end, they receive a cumulative grade ranging from 0 to 20 for external evaluation and from 0 to 38 for internal evaluation. Besides, students receive an individual grade for the accomplishment of clinical requirements. As indicated in the Training Program Guide, in order to receive the certificate of a dentist interns have to:

- complete the requirements of the DITP log book,
- complete all assignments,
- attend at least 60% of the designated study days,
- complete at least one research project,
- participate in the Dental Interns Research Day,
- participate in at least two national or international dental conferences,
- complete a clinic audit.

After the obtainment of the DITP certificate, graduates should undergo health professionals' classification and registration procedure in order to become registered general dentists (Annex 13).

In order to ensure the correlation of the internship year to the learning objectives of the program, the suggested plan of training is to be submitted to the Curriculum Committee of the college, so that it can verify whether this program meets the requirements of the bachelor program "Dentistry". The Dental Internship Training Program is being first implemented in the academic year 2015/2016. At the end of it, the Internship Training Unit of the college will submit its experience report and modification suggestions to the Curriculum Development Unit for further revision (AOQ Dentistry 16).

With regard to the aspects of internationality and academic mobility, the University informs that many professors from abroad have visited the College of Dentistry (see the list in AOQ Dentistry 19). The current curriculum of the program is said to be developed in cooperation with Tufts University, USA. The program does not include student exchange opportunities.

Examination procedures are determined and regulated in the program by the executive rules of the University, which are described in the document *Bylaws Organizing Academic Affairs and Study in Medical Colleges* (Annex A). The number of final examinations depends on the number of courses foreseen for any given semester.

Students' performance assessment procedures and examinations implemented in the program can be divided into the following groups:

- continuous assessments, which include various forms home assignments, classwork, presentations and quizzes;
- midterm and midyear examinations, which are usually carried out in the form of written assignments, OSPE<sup>3</sup>, OSCE<sup>4</sup> and practical tasks;
- final examinations, which are carried out in the form of case studies, written assignments, OSPE, OSCE and practical tasks.

The College of Dentistry clarifies that students' final grade for a course is calculated based on continuous assessments and final examinations. Continuous assessments take place throughout the semester; they may include mid-term assessments but they do not include the final examinations. Final examinations take place at the end of the semester and they should constitute 50% of the total grade with exception of the clinical courses, where the final assessment could be 40% upon the approval of the college council. The College of Dentistry is required to inform the Deanship of Admission and Registration about the examination dates two weeks before the beginning of the next semester.

Course instructors are responsible for the preparation of all examination questions and also for the evaluation of students' answers. According to the University regulations, the college council may assign another instructor to carry out the above-mentioned procedures (Annex A, Art.33, page 33).

According to the University, students can be allowed to complete the requirements of the course in the following semester; in this case, they receive a temporary grade IC (incomplete), which is later replaced by the actual grade or, in case of failure, with the letter F (fail). If a course lasts for more than one semester, it is designated in students' record as IP (in-progress) and, upon the completion of the course, substituted by the obtained grade (Annex A, Art.25, 27).

According to the University regulations, students have to obtain at least 60% of performance in clinical tasks and tests in order to successfully complete the courses containing such assignments (Annex A, Art. 26). Students whose attendance rate is lower than 75% are not allowed to take the final examinations. When students miss a final examination without an adequate excuse, they are considered to have failed it. They should then take a reset examination, for which they

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<sup>3</sup> OSPE means 'objective structured practical examinations', which is carried out for the assessment of laboratory exercises in preclinical circumstances.

<sup>4</sup> OSCE means 'objective structured clinical examination', which is carried out for the assessment of students' performance in clinical circumstances.

will be given the grade not higher than 60 (out of 100), which is a 'pass' grade. Reset examinations take place before the beginning of the next academic year. Students who failed in reset examinations have to repeat the respective course.

If students cannot attend the final exam due to an acceptable reason, they are allowed to take a make-up examination, for which they will be given the grade they have earned. Make-up examinations take place in the following semester. The University organizes the second round examinations (reset and make-up) for students who did not pass the final exams in the first attempt, but who failed in not more than 50% of the final examination taught in the given semester. If students failed in more than half of final examinations, then they have to stay in the same year and repeat the respective courses (Annex A).

According to the University regulations, in case of a student complain about examination results, the college council can re-evaluate an examination paper before the beginning of the next semester. The University has a regulated procedure for the submission of such complains and academic issues. The following units of the University are responsible for dealing with students' complains: the department and college council, the faculty committee for protecting students' rights, the academic office and the deanship of student affairs (for more details see Annex A, Arts.39, pages 37 and AOQ General Questions, 6).

Students' performance in the program "Dentistry" is evaluated according to the following grading system applied at the University (Annex A, Art.28):

<b>Letter code</b>	<b>Description of the grades</b>	<b>Percentage %</b>	<b>Grade point (out of 4)</b>	<b>Grade point (out of 5)</b>
A+	Excellent – High	95 –100	4.0	5.0
A	Excellent	90 – 95	3.75	4.75
B+	Very good – High	85 – 90	3.5	4.5
B	Very good	80 – 85	3.0	4.0
C+	Good – High	75 – 80	2.5	3.5
C	Good	70 – 75	2.0	3.0
D+	Pass – High	65 – 70	1.5	2.5
D	Pass	60 – 65	1.0	2.0
F	Fail	<60	0	1.0

Table 6: Grading System

Each score corresponds to a specific letter code and a certain amount of points as well as a grade description.

With regard to compensation measures for students with disabilities and chronic illnesses, the University informs that dentistry studies require a certain level of physical health. In case of hindrances to perform some of the tasks, students may forward a request to the College's Excuse Committee which then decides upon the actions to be taken.

#### **2.2.4 Admission requirements**

There are two admission procedures in the program. First, students apply for the preparatory year. Admission to the preparatory year is managed by the University Deanship of Admission and Registration, the college is not yet involved in this stage. After the successful completion of the preparatory year, students can apply to one of the following colleges: Dentistry, Medicine, Pharmacy, Applied Medical Sciences, Public Health and Health Informatics, and Nursing. Admission to a college means that students continue their studies in the second year.

Admission to the College of Dentistry and, thus, to the second year of the program "Dentistry" is determined by the University Council based on the recommendation issued by the respective college together with the Deanship of Admission and Registration (Annex A, Art.2 and 3).

In order to be admitted to the preparatory year at the University, applicants have to fulfill the following requirements:

- they or their mother should be of Saudi nationality; according to the University, only applicants of Saudi nationality are admitted to the program;
- they should have obtained a grade with at least 90% of performance in high school certificate;
- they should have obtained grades with at least 90% of performance in such subjects as chemistry, physics, biology and the English language;
- their high school certificate should have been obtained maximum two years before the application;
- they have to pass the General Aptitude Test (GAT) as well as the Educational Achievement Test required for medical colleges;
- they should successfully pass an interview set for medical college applicants;
- they should be physically and medically fit;
- they should be well-mannered and well-behaved; this is determined based on applicants' General Secondary School Transcript, which shows their grade for the subject "Conduct" (see Annex G).

Applicants are admitted to the preparatory year based on their individual score calculated out of the secondary school certificate grade (40%), GAT (30%), Educational Achievement Test (20%) and an interview (10%) (Annex A, Art.4). The General Aptitude Test (GAT) measures applicants' analytical and deductive skills, as well as their learning capacities, e.g. reading comprehension, recognition of logical relations etc. Educational Achievement Test covers the general and key concepts of biology, chemistry, physics, mathematics and English.

According to the by-laws of the University, applicants have to do medical tests after primary acceptance; after the ultimate admission to the University, they are covered by health insurance (AOQ, General 1). Moreover, applicants should not be employed in any governmental or private institution since they will be required to study full-time (Annex A, Art.3).

After the completion of the preparatory year, students are distributed among colleges based on their desires and their academic ranking, which is to 60% determined by their GPA for the preparatory year and to 40% by their cumulative grade of the secondary school certificate. Students should obtain the grade point at least 3.5 out of 4, in other words 85% of performance, in each subject of the preparatory year. The number of available places in each study program is determined by the University Council based on the suggestions of the college councils. Consequently, not every student will automatically be admitted to the college and, hence, to the second year of studies, because every program has a limited number of places as well as high requirements to students' ranking (AOQ, General Questions 5).

The University has a set of regulations defining internal and external transfer procedures (Annex A). According to these regulations, students transferring from other higher education institutions have to meet the following criteria in order to be admitted to medical colleges of the University:

- they should have attended a university or college recognized by the Saudi Ministry of Higher Education;
- they should not have a record of dismissal from another university for disciplinary reasons;
- they should have the recommendation from the University's Unified Academic Office as well as the approval of the respective college council;
- transfer candidates must meet the admission and registration conditions of medical colleges of the University;
- they should have studied in a similar medical study program;

- they should have passed the most recent academic year in the previous higher education institutions without any fail or reset examination and they should have obtained the grade B (very good) or at least 80% of performance in that year.

Transferring students address their request to the University's Deanship of Admission and Registration, and if they fulfill the above-described requirements, their request is then submitted to the respective college. The courses completed at the previous university will be equated and registered in students' academic record, though they will not be counted into their cumulative grade (Annex A, Art.43). In case of internal transfer from one medical college to another, students forward their request to the Unified Academic Office of the University.

Concerning the aspect of special assistance for disabled students, the university underlines that physical and medical fitness is one of the main admission requirements of the program.

In the academic year 2014/2015, there were 32 male and 37 female students admitted to the program, whereas in the year 2015/2016 it became 49 and 36 respectively (AOQ Dentistry 29).

## 2.3 Study conditions and quality assurance

### 2.3.1 Human resources

The teaching staff of the program "Dentistry" consists of 74 members, of whom 43 are male and 31 are female teachers. They are all employed on a full-time basis (see the CVs of the full-time teaching staff in Annex 14). Some of the male and female members of the teaching staff are working in both female and male sections of the college. Thus, the study program is taught in each section by the following number of the teaching staff:

Full-time teaching staff		
Position	Male section	Female section
Professor	10	11
Associate professor	8	9
Assistant professor	19	21
Lecturers	4	5
Total	41	46

Table 7: Full-time teaching staff of the program "Dentistry"

According to the University, currently there are 125 female and 121 male students in the program in total. In order to see the current students-teacher ratio is each



semester and course of the program, please refer to Annex 15. There, the College of Dentistry presents also its recruitment plan for the coming academic years.

According to the University, the average amount of teaching hours for different members of the teaching staff is the following: for professors 10 hours/week, for associate professors 12 hours/week, for assistant professors 14 hours/week, for lecturers 16 hours/week and for laboratory assistants 16 hours/week (AOQ General Questions 7).

Selection of teaching staff is conducted at the University according to a regulated procedure and requirements for the employment of Saudi, non-Saudi, as well as academic and non-academic staff. These regulations are designed and administered by the Saudi Arabian Ministry of Education. The University announces vacant positions on its website, as well as in local newspapers and through various media sources. The University and college representatives conduct candidate interviews; the departments of the College of Dentistry can also contribute their recommendation in the decision making process. The University indicates that qualified applicants for teaching positions of Saudi Arabian nationality will have the priority in the recruitment process than applicants of other nationalities (see AOQ General Questions 8; Self-Evaluation Report 2.1.3; Annexes E and F).

With regard to the opportunities for further professional development, the University informs that it offers programs on the improvement of teachers' performance. The Continuous Education and Training Unit of the University regularly organize training sessions and scientific meetings for the teaching staff of the College of Dentistry. These sessions are dedicated to such topics as full mouth reconstruction, bone substitute materials in dentistry, probiotics and oral health, facial scanning and other (for more details, see AOQ Dentistry 23).

With regard to the research activity of the teaching staff, the University presents a list of research grant projects carried out by a number of the college teachers in the years 2014/2015 (Annex 16).

Further human resources of the program include 20 nurses, 7 cleaners, 3 x-ray technicians, and 1 female and 6 male laboratory technicians (Self-Evaluation Report 2.1.4).

### **2.3.2 Facilities**

Both male and female sections of the College of Dentistry have the same number of lecture halls, except for three seminar rooms in the male and two seminar rooms in the female section, as well as the fact that lecture halls are bigger in the

female than in the male section. The teaching process in the lecture halls and seminar rooms is performed with the help of whiteboards, smart boards, data show and connection to internet.

The dental technical laboratories contain dental models, half jaws, denture finishing and polishing machines, articulators, wax cooking units, ultrasonic sterilizers, dental compression flasks and etc. Multipurpose dental laboratories have light microscopes with camera, spectrophotometers, sphygmomanometers, stethoscopes, pulse oximeters, thermometers, reflex hammer and other equipment. Phantom laboratories provide training dummies (Annex 17). The capacity of one laboratory is 30 people in one session.

Both female and male clinical training premises are said to have dental units with intraoral cameras each in separate cabinet. Each of these cabinets contains computers connected to central database program for delivery of patients' data. Both clinics are linked to the central sterilization unit as well as to 3D panorama machines.

Students of the program can use the resources of two libraries: the library of the College of Dentistry and the central library named "King Abdullah Bin Abdul-Aziz Library". The college library is accessible for both female and male students according to the schedule of opening hours (Annex 20). The list of currently available and required reading material in the college library is presented in Annexes 18 and 19).

The opening hours of King Abdullah Bin Abdul-Aziz Library are from 8:00 till 20:00 for the male section and from 8:00 till 16:00 for the female section of the library. The total number of books (hard copy) available at the University is 860,392. King Abdullah Bin Abdul-Aziz Library is subscribed to 68 on-line databases; all students can access the digital library of the University 24 hours a day by means of their username and password. Besides, there is an Internet hall within the central library, which is open from 8:00 till 20:00 in the male section and from 8:00 till 14:00 in the female section.

According to the University, the learning and teaching material and equipment of the College of Dentistry is funded by the Ministry of Finance according to the document *List for Organized Financial Affairs in UQU* (Annex 24).

### **2.3.3 Quality assurance**

The University follows the regulations and accreditation standards of the Saudi National Commission for Academic Accreditation and Assessment (NCAAA),

which is an independent body directly cooperating with the national council of higher education. According to the principles of the NCAAA, higher education institutions are primarily responsible for the quality of the study program they deliver and the aspect of quality pertains to all functions and activities an institution implements. The structure of the study program “Dentistry” has to comply with the standards of the National Qualification Framework of the NCAAA (Annex D).

The College of Dentistry has an Academic Development and Quality Unit, which is responsible for training, monitoring and evaluation of quality assurance processes. In more details, this unit ensures the application of quality standards in all work areas of the College of Dentistry; it organizes training of the teaching staff on the quality standards related to their position; it reviews the reports and evaluation forms received from other units of the faculty; it regularly issues reports on the level of quality assurance in the college; finally it coordinates the work of different administrative units and departments of the college in order to ensure the execution of quality standards on a common basis and in compliance with the requirements of the college management (Annex 25).

The Academic Development and Quality Unit, cooperates with the following units of the College of Dentistry: Curriculum Unit, Research Curriculum Unit, Exam Assessment Unit, Statistical Surveying Unit, Community Service Unit, IT Unit, Training and Continuous Education Unit, External Partnership Unit, Learning Resources and Library Unit, and the teams for supervising the application of NCAAA standards (for more information about the functions of each of these units, please see Annex 25).

The College of Dentistry implements a number of periodical reviews, which follow the requirements and standards determined by the NCAAA. The Academic Development and Quality Unit of the college prepares an annual college report at the end of each academic year. A college report summarizes the academic achievements and activities completed throughout an academic year. Furthermore, the study program of the college produces an annual revision report. Each course of the program has its own portfolio containing course specifications, course reports, evaluation surveys, and other relevant information.

Course instructors are responsible for monitoring the respective courses, preparation of examinations, collection of evaluation grades, and assurance of equality between female and male students. At the end of the course they have to produce a course report, which is then submitted to the Academic Development and Quality Unit for the annual revision of the college activities. The course report should contain full analyses of the course, obstacles experienced in the process of stud-

ies and further improvement recommendations, as well as the results of students' evaluations of the course. Revision results and modification proposals are discussed with the responsible program coordinator and the Curriculum Unit before they are forwarded to the dean of the college. Hence, any significant alterations in the course curriculum are based on continuous evaluation procedures (Self-Evaluation Report 1.1.32).

Students of the program are actively involved in quality assurance procedures of the college by filling in a number of questionnaires and statistical surveys. In them, students evaluate various aspects of the education process, for instance the orientation week, academic counselling services, facilities and equipment, as well as the assessment of the program in general by final year students. To see an example of such a questionnaire, please refer to Annex 23.

Evaluation of teaching strategies and teaching performance is carried out by means of questionnaires and statistical surveys, which demonstrate students' satisfaction and demands in this regard. Furthermore, course reports also serve to demonstrate the work done by the teachers during the semester. The results of questionnaires and course reports are discussed by the Curriculum Unit. In case of necessary modifications, it can be decided to invite a course instructor and a head of a department for extensive discussions (AOQ Dentistry 27).

The academic year 2015/2016 is the first time that the Dental Internship Training Program is being implemented and after that the first graduates of the program will enter the employment market. The College of Dentistry has already developed questionnaires to follow graduates career development and to collect their feedback regarding the education results six months after the graduation. Furthermore, the college intends to collect employers' feedback regarding the performance of program graduates at work. The Graduates' Affairs Unit is responsible for the preparation of the respective protocols (AOQ Dentistry 28). The first graduation in the program will take place in the academic year 2016/2017.

Information about the program "Dentistry", study plan, description of the courses, enrollment and study regulations, students guide and other program-related facts is available on the website of the College of Dentistry<sup>5</sup>. Students are informed about the objectives, regulations, requirements, attendance sheets, assessment methods and other details of the program courses through the college website, the training guide as well as in the University libraries (Self-Evaluation Report 1.1.36).

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<sup>5</sup> For more information, see the official website of the College of Dentistry: <http://dentistry.uqu.edu.sa/index.php/en/>

The Academic Office of the college is responsible for academic counselling and guidance of students. The Academic Office includes a Students Affairs Unit that deals with official procedures between a student and the University and also with the questions of financial support. Besides, there is one academic advisor for each year of studies who monitors, for instance, students' attendance and complains.

The Academic Office has a Mentoring Unit that assigns one mentor to four or five students in order to hold individual sessions with them, to maintain full observation of students' progress and to support them in social and psychological matters. Mentors have to prepare an online report for each student at the end of the semester and submit all reports to the Mentoring Unit. Such a report contains information about students' attendance, academic performance, activity, interactions, behavior, appearance, as well as comments of their mentor (Annex 26).

Every member of the teaching staff has from four to six office hours per week. Students can communicate with teachers also through students leaders appointed for each year of the program or through the website of the college.

The University assures to provide equal education process for both female and male students. Thus, the same course specifications, lecture forms, timing and content of examinations, as well as equipment and learning material, are applied in both sections of the program (Self-Evaluation Report 1.1.38).

Regarding special assistance for disabled students, the College of Dentistry underlines that they do not have such students because studies in dentistry require a certain level of physical health (AOQ Dentistry 21).

## **2.4 Information about the University**

Umm Al-Qura University was established in 1981 according to the royal decree of the same year. The University offers bachelor, graduate diploma, master, and PhD degrees in Islamic Studies, Arabic language, Applied Sciences, Social Sciences, Education, Medicine and Engineering. In general, the University has 32 colleges, one central library and three research institutes including the Custodian of Two Holy Mosques Institute for Hajj Research, the Institute of Scientific Research and Revival of Islamic Heritage, and the Custodian of Two Holy Mosques.

Approximately 30,000 students are currently studying in the University premises located in Makkah and its provinces. At the moment, the University has three campuses in Makkah and a branch campus in the city of Taif, which contains the College of Education and the College of Natural Sciences.

Regarding its special strengths, the University underlines that it fulfills the requirements of students and the teaching staff in terms of learning resources and facilities. Furthermore, it organizes various training programs to improve teaching skills and to encourage the research activity among its members.

The College of Dentistry has been established in 2007 and the first batch of students has been admitted to the program in the academic year 2009/2010. At the moment, there are 125 female and 121 male students in total enrolled in the college.

With regard to the current developments, the College of Dentistry is planning the construction of a new building consisting of female and male sections (details are in Annex 21).

### 3 Expert Report

#### 3.1 Preliminary remarks

The study programs of Umm Al-Qura University, Mecca, Kingdom of Saudi Arabia, are required to be accredited by an international accreditation agency based on the study program of the University. The accreditation criteria of the Accreditation Agency in Health and Social Science (AHPGS) are the formal basis for the accreditation decision. These criteria are documented and regularly updated on the AHPGS<sup>6</sup> website. Any accreditation criteria applied by the AHPGS are in accordance with criteria and requirements previously established throughout the Federal Republic of Germany, which are based on the “Standards and Guidelines for Quality Assurance in the European Higher Education Area” (ESG) as established by the European Association for Quality Assurance in Higher Education (ENQA).

Seven major criteria exist, which are structured as follows:

- 1) Aims and implementation,
- 2) Structure of the study program,
- 3) Admission and feasibility,
- 4) Examination system and transparency,
- 5) Teaching staff and material equipment,
- 6) Quality assurance,
- 7) Gender equality and equal opportunities.

The central focus of the accreditation procedure is the assessment of the learning outcomes and objectives of each individual study program, the structure of the study program, the examination system and transparency, availability of adequate equipment and facilities, study conditions, implementation of the results of quality assurance in terms of the further development of the study program and the implementation of equal opportunities for all University members involved.

The following specific study programs at the following colleges were subject of the accreditation procedure:

- a) “Medical Bachelor and Bachelor of Surgery” (Medical Bachelor and Bachelor of Surgery, MBBS; College of Medicine)
- b) “Dentistry” (Bachelor of Dental Medicine and Surgery, B.D.S; College of Dentistry)
- c) “Bachelor of Pharmacy” (Bachelor of Pharmacy; College of Pharmacy)
- d) “Doctor of Pharmacy” (Bachelor of Pharmacy; College of Pharmacy)

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<sup>6</sup>[http://ahpgs.de/wp-content/uploads/2011/10/Criteria\\_AHPGS\\_englisch.pdf](http://ahpgs.de/wp-content/uploads/2011/10/Criteria_AHPGS_englisch.pdf)

The evaluation of the above listed study programs and subsequent decision taking through individual accreditation procedures by the AHPGS was carried out according to the informed step-wise procedures below.

As the first step, the documents submitted by the University were reviewed by all nominated experts based on the above specified criteria as well as disciplinary and substantive aspects.

As the second step, a selected group of experts carried out the on-site visit at Umm Al-Qura University, Mecca, Kingdom of Saudi-Arabia, with the focus of clarifying any open questions as well as on-site verification of major statements provided in the application documents of the University.

The third step was the preparation of the expert report by the expert group. The report is structured in compliance with the accreditation criteria approved by the AHPGS. The documents of the University, the feedback from the experts about the documents and the results of the discussions with the representatives of the University during the on-site visit serve as the basis for the statements made in the expert report.

The fourth step of the procedure concerns the final decision regarding the overall accreditation and for each of the study programs. This decision step is formally executed by the Accreditation Commission of the AHPGS.



The following experts were appointed by the accreditation commission of the AHPGS for the evaluation of three study programs:

As representatives of academic and health care institutions:

**Prof. Dr. Wolfgang Arnold**

Professor of biological and material-scientific basis of dentistry, Faculty of Dental Medicine, Witten/Herdecke University, Witten, Germany; former Dean of the Faculty of Dentistry, former President of the Craniofacial Group of the International Association for Dental Research, former Head of the Department of Biological and Material Sciences in Dentistry;

**Dr. Rolf Heusser**

Director of the foundation NICER, National Institute for Cancer Epidemiology and Registration, Zurich, Switzerland; former Chairman at ECA, European Consortium for Accreditation in Higher Education; expert with broad knowledge of national and international accreditation procedures, policies, quality assurance regulations in medical sciences, as well as of internationalization in higher education;

**Prof. Dr. Ulrike Holzgrabe**

Professor and Chairperson of Pharmaceutical and Medicinal Chemistry, Institute of Pharmacy and Food Chemistry, University of Würzburg, Germany; former President of the German Pharmaceutical Society; expert in the development of antiinfectives, development of selective ligands of muscarinic receptors, bioanalytics and analysis of drugs using capillary electrophoresis and NMR spectroscopy;

**Dr. Adrian Kasaj<sup>7</sup>**

*Professor at the Department of Operative Dentistry and Periodontology, University Medical Center of the Johannes-Gutenberg-University Mainz, Germany; expert with broad experience in complex periodontal treatment, regenerative periodontal surgery, periodontal plastic surgery, local antimicrobial therapy in periodontology and application of laser in surgical periodontics treatment;*

**Prof. Dr. Stephan Lehnart**

*Professor of Translational Cardiology and principal investigator of the German Center for Cardiovascular Research (DZHK), Heart Research Center Göttingen, Department of Cardiology and Pulmonology, University Medical Center Göttingen, Germany; expert in translational sciences from the bench to bedside, cellular and organ remodeling mechanisms, molecular function and nanoscopic organization of intracellular calcium signaling;*

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<sup>7</sup> The experts shown in italics participated in the on-site visit of the University. All experts mentioned in the expert report accomplished the written evaluation of one of the study programs based on the documents submitted by the University.

**Prof. Dr. med. Gerd Mikus**

*Professor and Deputy Medical Director of the Department of Clinical Pharmacology and Pharmacoepidemiology at the University of Heidelberg; Deputy head of the Ethics Committee of the Landesärztekammer Baden-Württemberg, Member of the Expert Committee of controlled substances of the Federal Ministry of Health, Germany; expert with broad experience in clinical and experimental Pharmacology, drugs-in-pain therapy and drug addiction therapy;*

**Prof. Dr. Gerhard Karl Eduard Scriba**

*Professor of pharmaceutical chemistry and former managing director at the Institute of Pharmacy, University of Jena, Germany; member of the German Pharmaceutical Society (DPhG), Association of German Chemists (GDCh) and American Association of Pharmaceutical Scientists (AAPS); expert in drug analysis, peptide analysis, stereoisomer analysis, capillary electrochromatography and CE-based enzyme assays;*

**Univ.-Prof. Dr. Dr. Ralf Smeets**

Professor for maxillofacial surgery and oral surgery at the Medical Faculty of the University of Hamburg, Germany; executive senior physician and research director, Clinic and Policlinic for Oral Medicine and Maxillofacial Surgery at the Hamburg-Eppendorf University Hospital, Hamburg, Germany; expert in oral and maxillofacial surgery, tissue engineering of bone tissues, testing of bone replacement materials, periimplantitis, expression analyses of human pulp cells;

**Dr. Ulrich Stößel**

Assistant Professor at the Department of Medical Psychology and Medical Sociology, Albert-Ludwigs-University, Freiburg, Germany.

As a student representative:

**Martha Hofmann**

Student of medicine and further professional certification studies, as well as of advanced education in psychiatry and psychosomatics, at Witten/Herdecke University, Witten, Germany.

For the document-based written evaluation of the study programs and the on-site visit of the University, the Accreditation Commission of the AHPGS nominated the above listed group of experts. In February 2016, the relevant documents were forwarded to the experts to review the available information, to determine particular strengths and weaknesses, and to identify any open questions regarding the four study programs in writing. The experts' statements based on these evaluations were used for preparation for the on-site visit of the University.

Any open questions regarding the application documents were forwarded to the University on 11 December 2015. After the University representatives submitted their responses to these open questions by 8 January 2016, the AHPGS incorpo-

rated the answers by summary into each study program record. On 30 March 2016, the AHPGS forwarded the Self-Evaluation Reports, their annexes and the summaries of the study programs to the members of the expert group assigned for the on-site visit.

### **3.2 Basic information about the study program**

The main objective of the bachelor study program “Dentistry” offered at the College of Dentistry is to prepare specialists, who can provide effective, appropriate and independent patient care within the scope of general dentistry. It is a full-time study program with the regular duration of six years/12 semesters followed by one year of internship. To be more exact, the structure of the program consists of the preparatory (first) year, five years of the main study period and one year of internship, thus seven years in total. The program curriculum consists of 59 courses, ten of which are taught in the preparatory year and 49 during the main period of studies.

The study program requires the obtainment of 293 credit hours according to the credit system applied at institutions of higher education in Saudi Arabia. One credit hour is calculated based on the number of theoretical (lecture) and practical (laboratory) hours per week; to be more exact, one credit hour is equal to one lecture hour and two laboratory hours. The total workload of the program constitutes 11,471 hours in total, of which 3,105 are theoretical hours, 1,110 are practical activity hours, 1,515 are clinical activity hours, 4,350 are self-study hours and 1,391 are hours assigned for the clinical internship.

Students’ performance is evaluated based on the results of a Grade Point Average (GPA) and the Cumulative Grade Point Average (CGPA). GPA is calculated by dividing students’ total sum of points for one semester by the total amount of credit hours for all courses they attended in that semester. CGPA is calculated by dividing students’ total sum of points since their enrollment by the total amount of credit hours for all courses they have attended for the whole education period in the program.

According to the University regulations, the minimum pass grade for each course is 2.00 out of 5.00, which is equal to 60% of performance. Similarly, students’ CGPA should also be at least 2.00 out of 5.00 in order to complete their studies and obtain the respective academic degree.

There are two admission procedures in the study program: 1) admission to the preparatory year, and 2) admission to the study program itself. Both take place once a year, before the beginning of winter semester. The admission requirements

to the preparatory year at the University include the Saudi-Arabian nationality of the candidates or of their mother, a high school certificate or an equivalent with 90% of general performance as well as 90% of performance in the following subjects: chemistry, physics, biology and the English language. Besides, applicants have to pass the General Aptitude Test (GAT) and the Educational Achievement Test required for medical colleges. In addition to that, they have to be physically and medically fit.

Upon the completion of the preparatory year, students are admitted to a study program depending on their choice and their ranking. Students are ranked based on their performance in the preparatory year (60%) and their cumulative grade in the secondary school certificate (40%). The admission to the study program depends also on the number of available places at the college. The admission capacity of the program "Dentistry" constitutes 45 places for female and 45 places for male students annually. In the academic year 2014/2015, there were 37 female and 32 male students admitted to the study program, meaning to the second year of studies after the completion of the preparatory year.

After the completion of the sixth year of studies, students of the program start a one-year internship in the *Dental Internship Training Program* (DITP). According to the University, extensive dental training is mandatory to be eligible to practice dentistry in the Kingdom of Saudi Arabia. Upon the completion of the internship year, students receive the academic title "Bachelor of Dental Medicine and Surgery", as well as the certificate about the completion of the one-year Dental Internship Training Program.

### **3.3 Expert Report**

The on-site visit took place on 2 and 3 May 2016 according to a previously agreed schedule. Representatives from the central office of the AHPGS accompanied the expert group during the on-site visit.

Prior to the on-site visit, the expert group met on 1 May for the initial discussion and briefing by the APHGS. They discussed the submitted application documents and the results of the written evaluations, as well as any accreditation-related questions and foreseeable issues. Furthermore, the group finalized the plan for the on-site visit of the University.

During the on-site visit, the experts had transparent, productive and in-depth discussions with the representatives of the University management, college representatives, program directors and teachers, as well as with a group of female and male students currently enrolled in the study programs under evaluation. Further-

more, the experts visited the study facilities and equipment in teaching laboratories, lecture and seminar halls as well as the library and general study areas. They visited both the male and female sections of the University campus and discussed a comprehensive spectrum of education-related issues both with male and female representatives of the University.

The expert report was structured in compliance with the accreditation criteria approved by the AHPGS. The study program “Dentistry” will be analyzed in a comprehensive manner below. The documents of the University, the experts’ written reviews of the application documents, the observations made during the on-site visit and the results of the discussions with the University representatives and students serve as the basis for the statements given by the expert report.

### **3.3.0 Introduction and comprehensive remarks**

Umm Al-Qura University, Mecca, Kingdom of Saudi-Arabia, was established in 1981 according to the royal decree of the same year. The University includes 32 colleges, one central library and three research institutes. It offers bachelor, graduate diploma, master, and PhD degrees in Islamic Studies, Arabic language, Applied Sciences, Social Sciences, Education, Medicine and Engineering.

Umm Al-Qura University aims at the provision of higher education and graduate studies to enable the citizens of Saudi Arabia to contribute to the development of their country in the light of Islamic principles. Furthermore, the University’s objective is to contribute to the enhancement of scientific research by conducting and encouraging research and by establishing research centers. In addition to that, the University’s goal is to educate and train specialized scientists and teachers.

The main University campus is located in the city of Mecca with a branch in the city of Taif, the College of Education and the College of Natural Sciences. The University is financially supported by the government. Every student at the University receives financial stipend on a monthly basis. During the visit approximately 30,000 students were enrolled at the University of Mecca. Furthermore, the College of Dentistry has 125 female and 121 male students; the College of Medicine has 766 female and 704 male students, and the College of Pharmacy has 258 female and 239 male students.

In Saudi Arabia, the education program is further organized to encompass gender segregation. Consequently, the campus of Umm Al-Qura University consists each of male and a female study sections for teaching. At the on-site visit of the University, the expert group assigned by the AHPGS had the opportunity to discuss the program-related issues with both male and female representatives of the Universi-

ty. Moreover, they visited the study premises of both gender sections at the colleges. During the on-site visit, the experts witnessed constant activities and mutually beneficial exchanges between the male and female sections of the University. Apparently, the University strives to provide both gender groups with similar learning and examination conditions, admission chances, material resources and other opportunities for education and development.

During the on-site visit, the University representatives outlined future plans for the development of the institution and of the study programs to be accredited. In particular, the University highlighted the importance of a new integrated campus teaching hospital, which is currently under construction. Upon completion of the main hospital building, the Colleges of Medicine, Dentistry and Pharmacy will move into these new teaching premises.

### **3.3.1 Aims and Implementation**

The study program “Dentistry” aims at educating dental specialists who will serve the needs of the region of Mecca and the country in general. By the end of their studies, graduates of the program are expected to be able to assess patients’ medical and dental history, and to plan and provide treatment procedures accordingly. They must be able to recognize various signs and symptoms of illnesses and necessary dental interventions, to know the interrelation between the general and oral health, as well as to evaluate and apply clinical, radiographic, and other diagnostic information and procedures related to dental care.

From the expert point of view, the learning outcomes of the study program “Dentistry” are clearly defined and consecutively implemented throughout the curriculum. Knowledge, competences and skills acquired in the program correspond to the pursued academic degree and future professional occupation aimed at by the University. Along with the competences necessary for qualified employment, the objectives of the program cover also skills of social commitment and personal development. Based on the fact that students of all health care-related degree programs study together in the preparatory year, the University provides opportunities for interdisciplinary collaboration and exchange between students at the initial stage of the education process.

During the assessment procedure, the experts made several observations regarding some dental care skills that should also be covered by the learning outcomes of the program. They referred more specifically to the competences in orthodontics, maxillofacial surgery and preventive dentistry (please see section 1.3.2 for

more detailed discussion). The experts emphasized that the program management might consider offering more courses in these subjects.

With regard to the presentation of the program content and results, the experts advocate the idea of offering the program graduates an additional official document describing the competencies obtained by the end of the studies together with their graduation diplomas. Higher education institutions of the European countries participating in the Bologna Process are required to issue such a document titled “Diploma Supplement”, which is an attachment to a higher education diploma. The Diploma Supplement provides information about the nature, level, context, content and status of the studies completed by an individual student. The experts believe that the introduction of a similar document will contribute to fostering student exchange between Umm Al-Qura University and other national and international universities. Furthermore, it will enable foreign universities to better classify Saudi Arabian diplomas within their own system of higher education degrees, which is an important aspect for students planning to pursue further studies abroad. Finally, such a document will facilitate the better and faster understanding of the program content and learning outcomes by prospective employers.

The experts conclude that the objectives of the study program are developed in accordance with the overall strategy of the University. They also confirm that the study program “Dentistry” complies with the national requirements regarding the structure and content of higher education programs in dentistry as well as regarding the national licensing procedure. To be more exact, the University successively prepares its students for the national licensing examination conducted by the Saudi Commission for Health Specialties. After passing the licensing examination, graduates of the program obtain the right to practice dental care in Saudi Arabia. Hence, the study program is implemented in compliance with the national requirements to professional activity in the sphere of health care.

The University informs that program graduates can find employment as dentists in governmental institutions and hospitals, establish their own dental clinic or center, or start working as independent dental practitioners in private health care centers and companies. During the discussion at the on-site visit, the program students underlined that they prefer to pursue further postgraduate studies of a master or PhD degree. It must be emphasized that the University extensively supports its students in their aspirations to study abroad. To do so, the University refers to its contacts with numerous foreign higher education institutions, particularly in English-speaking countries.

The first batch of graduates of the program “Dentistry” is expected in the academic year 2015/2016. At the on-site visit meeting, the majority of the program students conveyed that after finishing their studies, they would like to work in the public sector. In spite of that, the experts recommend the University to provide students with skills and competences necessary also for the establishment of a career in the private sector. To this effect, the College representatives could consider offering elective modules, for instance, in the sphere of dental management. Such input can encourage students to commence their own entrepreneurial activities.

Concerning the employment situation, the University clarifies that the number of citizens is continuously growing in Saudi Arabia and so does the demand for professionals in the sphere of medical care. Consequently, there is a considerable lack of professional dentists in the country. Based on these observations, the University predicts good employment rates among the graduates of the program “Dentistry”.

That is why the experts were considerably surprised and bewildered at the on-site visit by the report of the University, according to which the average of (only) 25% of all University graduates found employment within the next three months following the completion of their studies at the University. The experts were hereby confronted with the question how to interpret this number taking into account the development of the Saudi Arabian labor market and the current employment capacities of the country. Independent of the answer to this question, the experts concluded that the University should increasingly support its students during the transition period from the academic to professional sphere, so that a larger number of graduates will be employed. For that, the University should establish a Career Center and encourage individual colleges and departments to organize more events and consultation opportunities, where students can meet the representatives of various professions and learn about the needs and expectations of the prospective employers.

One of the learning outcomes of the program is to enable graduates to demonstrate the principles of research, to arrange the design and proper methods of scientific research. This is achieved in the research-related courses, such as “Introduction to Biostatistics”, “Public Health 1”, “Basic Research Methodology”, “Evidence Based Dentistry” and the “Research Project”. In the course “Research Project” students learn to select and apply appropriate statistical methods of data analyses and to collect necessary medical information from on-line resources, to write a scientific paper and to communicate with peers and academic superiors, as well as to present the obtained results in front of an audience.



In the course of the on-site visit, the experts requested the college representatives to clarify how exactly the research project is structured for an individual student and whether submission of a research paper is a mandatory requirement for the completion of the program. The representatives of the college clearly demonstrated that research plays an important role in the implementation of the study program. The program students are required to complete a research project in the sixth year of studies and also during the internship year. Each research project has to be completed with a research paper. The experts underline that particularly outstanding research projects should be further promoted by the University. With the help of the institutional support students can then participate and present their achievements in different meetings and conferences.

The teaching staff of the college criticizes though that for the most part they have to finance the participation in international conferences themselves and that there is a lack of financial support in this regard from the side of the University. Based on this remark, the experts encourage the University to create more funding possibilities and to find additional resources in order to increase the financial support of discipline-specific national and international conferences.

Based on the application documents and the observation during the on-site visit, the experts deduced that internationalization is embedded into the program mainly through the curriculum, which has been developed in cooperation with Tufts University, Medford, United States. At the same time, the experts observed the lack of direct cooperation and experience exchange between the University and other national as well as international higher education institutions and organizations. This fact was extensively commented and discussed by the experts in the written assessments and during the on-site visit. The experts emphasize that mobility of students and teachers, as well as the development and implementation of international exchange, constitute an indispensable part of modern education.

From the experts' point of view, it might therefore be a good option for the University to initiate national and international short-term exchange opportunities for the academic staff and the senior students of the program within the framework of the so-called "summer schools", which usually last for a couple of weeks. During this time, students will have the opportunity to meet teachers and their peers from other Saudi-Arabian and foreign higher education institutions. For this purpose, the University can effectively put into use its numerous contacts with various universities and institutions.

Overall, the experts concluded that the requirements of the criterion are fully met.

### 3.3.2 Structure of the study program

The study program “Dentistry” consists of 59 courses in total, ten of which are taught in the preparatory year and 49 are taught from the second to the sixth year of studies. Of these 49 courses, ten are university requirement courses and 39 are program-specific courses. The regular study period in the program constitutes six years/twelve semesters followed by one year of internship. The Dental Internship Training Program (DITP) constitutes the last stage of the program.

The program graduates are required to pass the licensing examination in order to have the right to work as dentists in the country. The licensing examinations are carried out by the Saudi Arabian Commission for Health Specialties (SCHS). In order to pass this examination, graduates have to submit their application and a list of required documents, which are then reviewed by a specialized consultant and, if necessary, by a specialized committee. Upon the successful revision of the documents, the program graduates receive the final registration issued by the SCHS.

From the experts’ point of view, the study program “Dentistry” has a well-structured, modern curriculum with basic sciences offered at the beginning and the dentistry-specific courses offered during the main period of studies (from the second until the sixth year) in accordance with the increasing degree of complexity of the learning material. The experts positively noted the fact that the program includes also courses dedicated to education in public health and dental ethics. Furthermore, they have emphasized the advantage of offering a course in geriatric dentistry, where students obtain the skills of delivering dental care to older adults.

One of the curriculum-related issues discussed by the experts was the fact that the structure of study program relies to a large extent on the principles of classical (restorative) dentistry, whereas preventive dentistry as a subject is missing in the program. Given the fact that preventive dentistry is a common practice in the United States and European countries, the experts strongly encourage the program management to introduce a course or courses dedicated to the concepts of preventive dentistry. There students can learn about dental care procedures and treatment methods that serve to prevent oral health problems and diseases. In these courses students should also acquire the skills of individualized care and education of each patient in the dental practice.

Another subject of the experts’ discussions was the scarcity of courses in some of the branches of dentistry. To be more exact, the program offers only one short course in orthodontics. The experts underline in this regard that orthodontics is an important part of dental studies because it deals with the diagnosis, prevention

and correction of malpositioned teeth and jaws. Furthermore, the experts underline that more study hours should be dedicated to maxillofacial surgery. Since the program graduates are expected to obtain the academic degree not only in dental medicine but also in dental surgery, the University should guarantee that sufficient courses and training periods are offered for the acquisition of the respective professional qualifications.

In a similar way, the experts discussed the possibility of offering elective courses in the program. Thus, students could choose a course in dental management or other topics related to dental studies on a semester basis. With the help of elective courses, the University would give students the opportunity to pursue certain spheres of their interest in dentistry in a more extensive manner. Moreover, elective courses could help to increase the interdisciplinary capacities of the program content.

In addition to that, the experts propose the management of the program to engage students in direct contact with patients at an earlier stage of the program. At the moment, students are confronted with patient care and patient communication first starting with the fourth year of studies. This consideration is however dependent on the national legal regulations applied for the organization of the education process and training in health care studies.

With regard to the length of the study program “Dentistry”, the experts assessed it to be quite long, given the fact that it leads to a bachelor’s degree. Together with the preparatory year, the regular study period of the program constitutes seven years. At the same time, the experts pointed out that students’ workload in the preparatory year is considerably lower than in the subsequent years of the program. During the on-site visit, it became clear though that the first common year is particularly important for the program students to acquire the fundamental academic competences. Besides, the college representatives emphasized that the preparatory year contributes to the solidification of interdisciplinary contacts and collaboration between students.

Based on the role of the named factors, the experts came to the conclusion that the preparatory year is useful for the whole structure of the program. Furthermore, taking into account that the actual dentistry-specific study period of the program lasts for five years and is indispensable for the full professional development of students, the experts confirmed that the length of the program is comprehensive and expedient for the achievement of the foreseen learning outcomes.

When reviewing the program-related documents of the University, the experts noticed that the contact and self-study hours provided in the study plan are not always congruent with the respective hours determined in the course descriptions. Therefore, the experts emphasize that the information and the facts related the structure (e.g. workload, study plan, credits) and the content (course descriptions, learning outcomes) of the study program should be communicated within and particularly outside of the University as precise as possible. This is crucial for the transparent and comprehensive presentation of the program and, hence, for the attraction of prospective students and teachers.

Regarding the workload of students in the program, the experts underlined that along with contact hours, self-study hours constitute an important part of the education process because they reflect students' total input within and outside of classes. The experts encourage the University to explicitly determine the amount of self-study hours and to outline the total workload of the study program in a transparent manner and including the self-study hours. In addition to that, the experts emphasize that the self-study hours should be continuously structured and navigated by the University, in order to maintain a realistic estimate of the hours students need for independent learning. Hence, the experts recommend the University to use questionnaires in order to assess and to plan the number of hours students need to accomplish various tasks. Based on the obtained results, the University could compare and accordingly adjust the expected workload to the experience and learning capacities of students. This will in turn enable the program administration to determine the feasibility of learning outcomes.

The experts discussed the fact that the structure of the program consists of numerous different courses and is, therefore, quite fragmented. They concluded that this leads to a high examination load for students at the end of each semester because every course finishes with a final examination. The discussion with the program students revealed that, on the one hand indeed, they experience the resulting workload as quite intensive and high. On the other hand, the program students underlined that the continuous engagement in examinations assures a successful learning process. Based on the European perspective, the experts recommend the University to consider the combination of the program courses into larger units, e.g. modules. The experts highlight the expediency of using modules, since they cover a bigger amount of learning material and are completed with one

final examination (more information about the modularized structure can be found in the document “ECTS Users’ Guide”<sup>8</sup>).

The study program “Dentistry” does not require the submission of a bachelor thesis for awarding the academic degree. But from the experts’ point of view, students’ activities in the courses “Basic Research Methodology” and “Research Project” is fully comparable with the European understanding of such a final research paper. In this regard, the experts underline also the fact that due to students’ continuous engagement with various research-related questions and methods of working, the program develops a solid understanding of how to deal with discipline-specific research questions.

After the completion of the sixth year of studies, students have to commence the internship year in the *Dental Internship Training Program*, designed specifically for dental program students. The training program consists of a clinical and an educational component. The clinical component incorporates two branches: internal (within the University) training and the hospital-based training, each lasting for six months. The hospital-based training is carried out in two or more governmental hospitals, and it aims at the exposure of students to different working conditions and the improvement of their practical skills. The educational component of the internship year lasts also for six months and covers dental research, journal club activity, continuous dental education lectures, and community service. By the end of this time, students prepare a poster and an oral presentation about their research activities and achievements, which is then presented on the Research Day organized by the college.

From the experts’ perspective, the structure and the implementation of the internship year are well thought through and are appropriate in relation to the pursued learning objectives, the academic title and the professional occupation.

The expert group concludes that the requirements of the criterion are met.

### **3.3.3 Admission and Feasibility**

The admission procedure of the College of Dentistry complies with the regulations of the University and with the two-step admission system implemented in all Saudi Arabian higher education institutions. First, students are admitted to the preparatory year, which is managed by the University Deanship of Admission and Registration. After the successful completion of the preparatory year, students can apply to one of the following colleges: Dentistry, Medicine, Pharmacy, Applied Medical

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<sup>8</sup> See the link: [http://ec.europa.eu/education/library/publications/2015/ects-users-guide\\_en.pdf](http://ec.europa.eu/education/library/publications/2015/ects-users-guide_en.pdf) (11.05.2016)

Sciences, Public Health and Health Informatics, and Nursing. Admission to a college means that students continue their studies in the second year of the study program.

The experts conclude that the admission requirements of the study program “Dentistry” are distinctly regulated and are in congruence with the standards of the University.

The experts positively noted the fact that students are offered an orientation week, where they are informed about the learning requirements of the program and the organizational aspects of studies at the University. Initial admission and the enrollment to the second year of the program are institutionally separated, and both procedures are clearly described. Students do not have to pay tuition fees; the University offers academic and monthly financial support to the admitted students.

The admission requirements enable the University to choose students with the sufficient level of knowledge in subjects related to dentistry, and thus, to assure the feasibility of the intended learning material. With regard to the requirement of physical and medical fitness of the applicants, the experts agree that it is important to take into account the fact that students are expected to work with various tools of dental care, and are also responsible for the safety of their patients. However, the experts underline that the University should prepare program- or specialization-specific admission requirements, because certain limitations in physical performance are applicable for one study program but are not relevant for another. The same applies to the support methods for students who became physically impaired or chronically ill during their studies at the University. In some specializations they can perhaps continue their studies, whereas in others the University should provide them with special conditions or with the possibility to change the initial specialization.

During the on-site visit, the representatives of the College of Dentistry explained that they decide about the provision of special compensation measures for students with disabilities and chronic illnesses on an individual basis. Within this context, the experts strongly encourage the University to adopt official regulations on the institutional level in order to determine the units or persons responsible for the support of students with special needs, and also to guarantee a consistent and transparent approach in matters of academic, health and social support.

The University has a set of regulations for internal and external transfer procedures. Students transferring from other higher education institutions forward their request to the University’s Deanship of Admission and Registration, and if they

fulfill the requirements, their request is then submitted to the respective college. Courses completed at the previous university will be equated and registered in students' academic record, though credits for these courses will not be counted into their cumulative grade.

The expert group concludes that the requirements of the criterion are met.

### **3.3.4 Examination System and Transparency**

The University implements bylaws that regulate the study process, grading and examinations on the undergraduate level. Methods of assessment of students' performance can be grouped into the following types: continuous assessments, midterm and midyear examinations, and final examinations. Continuous assessments take place throughout the semester; midterm and midyear examinations are usually carried out in the middle of the semester or of an academic year, respectively, and final examinations at the end of the semester. Course instructors are responsible for the preparation of all examination questions and also for the evaluation of students' answers. Students whose attendance rate is lower than 75% are not allowed to take the final examination and have to repeat the respective course. Furthermore, students have to obtain at least 60% of performance in clinical tasks and tests in order to successfully complete the courses containing such assignments.

Students, who have failed an examination after the first attempt, can take the second round examinations that are carried out in the following semester on the date approved by the college. However, students who have failed in more than 50% of final examinations in the given semester are not permitted to take the second round tests; in that case they have to repeat the respective courses in the next academic year. If students cannot attend the final examination due to an acceptable reason, they are allowed to take a make-up examination. If students finally failed a study course (i.e., failed the same exam three times), the University offers counsel and advice of transfer to another study program. The University has a regulated procedure for the submission and consideration of students' complaints.

The experts positively note the fact that the University uses different forms of examinations, e.g. presentations, OSPE<sup>9</sup>, OSCE<sup>10</sup>, written exams, practical tasks.

The experts evaluate the assessment regulations and procedures of the University as adequate. The expediency of the examination procedures of the University

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<sup>9</sup> OSPE means 'objective structured practical examination', which is carried out for the assessment of laboratory exercises in preclinical circumstances.

<sup>10</sup> OSCE means 'objective structured clinical examination', which is carried out for the assessment of students' performance in clinical circumstances.

serves as an effective tool to determine students' learning success as well as the feasibility of the learning material. As it has already been mentioned under section 1.3.2, the program management might consider the reduction of the examination load of students through the combination of the program courses into larger units, e. g. modules. However, it should also be taken into account thereby that the program students consider the constant engagement with the study content as beneficial and indispensable for their professional development.

The College of Dentistry has submitted a precise list of instructions on the preparation of examination copies for every student, on the organization of the examination day and on the correction of students' answers. These instructions assure the transparency and impartiality of the examination procedures. Each student of the program can see the results of the online evaluation report, which is prepared by the academic mentors for each student individually.

Information about the study program "Dentistry", including study plan, description of the courses, enrollment and study regulations, students guide and other program-related facts, is available on the website of the College of Dentistry. Students are informed about the objectives, regulations, requirements, attendance sheets, assessment methods and other details of the program courses through the college website, the training guide as well as in the University library.

In the course of the on-site visit, members of the teaching staff and students of the program expressed their contentment with the examination system and the methods of information provision at all stages of education process at the University.

The expert group concludes that the requirements of the criterion are met.

### **3.3.5 Teaching staff and Material Equipment**

The teaching staff of the bachelor study program "Dentistry" consists of 74 members, of whom 43 are male and 31 are female teachers. They are all employed on a full-time basis. Some of the male members of the teaching staff are working in both female and male sections of the college; therefore, there are 41 teachers working in the male and 46 teachers working in the female section of the study program. The students-teacher ratio constitutes approximately two to three female and three male students per one teacher, when considering the number of teachers and students all together and not course-specific.

The University implements a regulated procedure of employment on academic and non-academic positions for Saudi-Arabian and non-Saudi-Arabian candidates. These regulations are designed and administered by the Saudi Arabian Ministry of



Education. The University announces vacant positions on its website, as well as in local newspapers and through various media sources. The experts consider these employment standards of the University to be adequate, transparent and well-described.

During the on-site visit, the experts discussed the process of employment of new teachers with the academic staff of the study program “Dentistry”. The teachers explained that, due to the increasing number of students at the college, they are experiencing a respectively increasing demand for additional teaching personnel. However, the process of recruitment of new teachers is being hampered by the University administration because of reasons incomprehensible to the academic staff of the college. In this situation, the experts strongly recommend the University to establish and consecutively implement a transparent procedure of employment on teaching positions, in order to enable all colleges to comprehensively plan and arrange the teaching process in their respective study programs.

The experts emphasize that there are many teachers at the college who have received their education and/or training at universities in Europe and the United States. The academic staff of the College of Dentistry is actively engaged in the improvement of teaching methods and the content of the program in general. They take part in training sessions and scientific meetings regularly organized by the Continuous Education and Training Unit of the University. These sessions are dedicated to such topics as full mouth reconstruction, bone substitute materials in dentistry, probiotics and oral health, facial scanning and other. The experts evaluate such events as expedient and effective for the continuous development of the college academic staff. At the same time though, they recommend the college to strengthen the involvement of the teaching staff in international academic exchange activities and scientific events. As it has been indicated earlier, the University should therefore provide the necessary financial and organizational means for the participation in such events.

During the on-site visit, the experts visited the classrooms, lecture halls and training premises of the College of Dentistry. The female section of the program “Dentistry” has four lecture halls, two seminar rooms and four laboratories. The male section of the program has the same number of premises, except for two seminar rooms. Lecture halls and seminar rooms are equipped with whiteboards, smart boards, data show. The dental technical laboratories contain dental models, half jaws, denture finishing and polishing machines, articulators, wax cooking units, ultrasonic sterilizers, dental compression flasks etc. Multipurpose dental laboratories have light microscopes with camera, spectrophotometers, sphygmomanome-

ters, stethoscopes, pulse oximeters, thermometers, reflex hammer and other equipment. Phantom laboratories provide training dummies.

The experts were positively impressed by the quality of the equipment at the College of Dentistry. Nevertheless, the discussion with the program students revealed that there is a limited amount of some of the premises, particularly for the purposes of exchange and social activities. Within this context, the experts refer to the construction of the teaching hospital of the University, which will help to improve the situation with the available space. But independent of these future plans, the experts induce the college representatives to verify now whether it is possible to find additional learning premises for the current students of the program.

The College of Dentistry has its own dental specific library and it is accessible for both female and male students according to the schedule of opening hours.

Moreover, the experts had the chance to visit the University library, which contains resources for all colleges of the University. The opening hours of the King Abdullah Bin Abdul-Aziz Library are from 8:00 till 20:00 for the male section and from 8:00 till 16:00 for the female section of the library. King Abdullah Bin Abdul-Aziz Library is subscribed to 68 on-line databases; all students can access the digital library of the University 24 hours a day by means of their username and password. Besides, there is an internet hall within the central library, which is open from 8:00 till 20:00 in the male section and from 8:00 till 14:00 in the female section.

Regarding the opening hour of the central library and the internet hall, the experts recommend the University to offer equal access to the existing learning resources for both groups of students. They underline that female students must have the same timeframe and opportunities for working at the library as their male peers, especially given the fact that the number of female students is larger in all three colleges considered in the accreditation process.

The learning material and equipment of the College of Dentistry is funded by the Ministry of Finance according to the University regulations for the organization of financial affairs.

To conclude, the program has sufficient and adequate facilities and equipment necessary for the organization of the education process in dentistry. The provision and use of facilities and equipment is monitored as part of the quality assurance system of the program.

The expert group concludes that the requirements of the criterion are met.

### 3.3.6 Quality Assurance

The University follows the regulations and accreditation standards of the Saudi National Commission for Academic Accreditation and Assessment (NCAAA), which is an independent body directly cooperating with the National Council of Higher Education. According to the University, the study program “Dentistry” complies with the standards of the National Qualification Framework of the NCAAA.

From the experts’ point of view, the College of Dentistry has a well-structured system of quality assurance that is primarily managed by the Academic Development and Quality Unit of the college. The main function of this unit is to monitor and evaluate the quality assurance processes, and also to cooperate with the following unit of the college: Curriculum Unit, Research Curriculum Unit, Exam Assessment Unit, Statistical Surveying Unit, Community Service Unit, IT Unit, Training and Continuous Education Unit, External Partnership Unit, Learning Resources and Library Unit, and the teams supervising the application of the NCAAA standards.

The College of Dentistry implements a number of periodical reviews, which follow the requirements and standards determined by the NCAAA. All stakeholders of the college, including students, academic staff, management members, patients who were treated by the dental students, and employers of the program graduates, are required to fill in questionnaires, in which they evaluate the quality of the courses, the orientation week, the program in general, academic counselling, facilities and equipment, education experience, professional qualities of graduates and other aspects related to higher education process.

At the end of each course, course instructors have to prepare a course report which is then submitted to the Academic Development and Quality Unit to issue an annual college report. Revision results and modification proposals are discussed with the responsible program coordinator and the Curriculum Unit before they are forwarded to the dean of the college. The experts concluded that such evaluation procedures enable the program management to promptly introduce minor corrections and alteration in the curriculum. Major modifications are usually performed every five years.

The experts were convinced about the sufficiency and completeness of the documents demonstrating the functionality of the quality assurance system of the University. At the same time though, they recommend the University to do the final edition of the documents (reports, descriptions, results) prepared and submitted within the framework of evaluation and accreditation procedures, both internal and external. The final edition should be implemented institution-wide and should serve

the purpose of ensuring a coherent and uniform layout of all documents. In terms of content, the final edition should also enable the University to remove redundant information and thus, to make the documents as precise and subject-specific as possible. The experts are confident, that this will help to make the respective documents more comprehensible and, thus, immensely facilitate the work of external parties involved in the accreditation procedures.

The first batch of graduates is expected to complete the study program and the Dental Internship Training Program in the academic year 2015/2016. The College of Dentistry has already developed questionnaires to follow graduates career development and to collect their feedback regarding the education results six months after the graduation. Furthermore, the college intends to collect employers' feedback regarding the performance of program graduates at work. The experts support the college's plans and underline the importance of the evaluation results that will reveal the practical relevance of the program, and thus help to make it more performance- and profession-oriented.

The University provides students with academic and social support necessary for the accomplishment of assignments and the organization of their learning process in general. Every member of the teaching staff has four to six office hours per week. The Academic Office of the college is responsible for academic counselling and guidance of students. It assigns one mentor to four or five students in order to hold individual sessions with them, to maintain full observation of students' progress and to support them in social and psychological matters. Mentors have to prepare an online report for each student at the end of the semester and submit all reports to the Mentoring Unit. Such a report is contains information about students' attendance, academic performance, activity, interactions, behavior, appearance, as well as comments of their mentor.

The expert group concluded that the requirements of the criterion are met.

### **3.3.7 Gender Equality and equal opportunities**

The study program "Dentistry" is taught to female and male students separately in the respective sections of the University campuses. The University assures to offer equal education process for both female and male students. Thus, the same course specifications, lecture forms, timing and content of examinations, as well as equipment and learning material, are said to be provided in both sections of the program.

However, the experts point out that the opening hours of the central library, which are shorter for female students than for their male peers, do not fully comply with

the statement of the University. Therefore, the experts strongly recommend the University to guarantee equal access to the existing learning resources for both groups of students.

Moreover, the experts encourage the University to develop and to publish a concept of gender equality in the form of an official document. This document should serve as a clear and transparent statement that both female and male students and members of the teaching staff, as well as other stakeholders of the University, are provided with equal opportunities and conditions to study and work within the premises of the University. Consequently, this institutionally adopted concept of gender equality should serve as a standard to be fulfilled by all colleges and study programs of the University.

Regarding the admission and compensation measures for students with disabilities and chronic illnesses, the University informs that studies in dentistry require of students to be physically and mentally fit. In case of hindrances to perform some of the tasks, students may forward a request to the College's Excuse Committee which then decides upon the actions to be taken. As written above, the experts agree that the successful completion of higher education program in dentistry sets certain requirements to the physical constitution and health of students.

At the same time though, the experts strongly recommend the University to set up program-specific requirements to physical fitness of students. Furthermore, the University should also adopt official institution-wide regulations that will determine what units or persons are responsible for the organization of support measures for students with disabilities and how these measures are to be implemented. Thanks to such regulations, the University will have a solid basis for taking decisions regarding students with special needs in a transparent and objective way.

Taking into account the social norms and the cultural context of the country of Saudi Arabia, the experts group concludes that the requirements of the criterion are met.

### **3.4 Summary**

The on-site visit of Umm Al-Qura University took place in an open atmosphere of mutual trust and respect. As a result, the experts had the opportunity to discuss and clarify the accreditation-related questions, including the critical aspects from the preliminary written evaluations, with all groups of the University and college representatives.

The experts emphasize that due to the current dynamic demographic development in Saudi Arabia, the University is confronted with tremendous challenges. The problems associated with these challenges, as well as the existing opportunities, are extensively addressed and dealt with in the medium and long-term strategies of the University. From the experts' point of view, the study programs in health care sciences, which were assigned for the accreditation, should therefore be considered as the contribution of the University to the development and transformation of the society within the given social settings.

Furthermore, the experts underline the responsibility and the awareness of the role of Mecca as a pilgrimage center, with which representatives of Umm Al-Qura University perform their duties. The program students also proudly report about their involvement in projects dedicated to the support of pilgrims, who time and again need dental care services.

With regard to the further development of the University and of the study programs in health care sciences in particular, the experts underline the significance of the opening of the new teaching hospital in the nearest future. The University should invest extensive efforts into the completion of the construction work as soon as possible.

The Bachelor program "Dentistry" has an adequate program design that assures the acquisition of knowledge by students over the whole period of education. The structure, learning outcomes and training requirements of the study program are aimed at preparing students for the national licensing examination and the future professional life. The quality assurance system of the College of Dentistry is described and explained in detail. The study program has a well-functioning teaching and examination system. Learning material, training equipment, digital technologies and other necessary facilities are provided in a sufficient and accessible manner.

Based on the application documentation and the conclusions of the on-site visit, the experts have determined that the study program "Dentistry" fulfils the above described and evaluated criteria.

The experts came to the conclusion that they will submit a recommendation to the Accreditation Commission of the AHPGS for a positive decision regarding the accreditation of the study program.

Apart from the accreditation decision, the experts have outlined the following list of recommendations for the continuous development of the study program:

### Recommendations for the “Dentistry” program:

- The College of Dentistry should provide students with skills and competences necessary for the establishment of a career not only in public but also in private sector. To this effect, the college representatives could consider offering elective modules, for instance, in the sphere of dental management (1.3.1 and 1.3.2);
- The College of Dentistry and the University in general should create more funding possibilities and find additional resources in order to increase the financial support of discipline-specific national and international conferences (criterion 1.3.1);
- The experts strongly encourage the program management to introduce a course or courses dedicated to the concepts of preventive dentistry (1.3.2);
- The study program “Dentistry” should offer more study hours dedicated to maxillofacial surgery and to orthodontics (1.3.2);
- Students should be engaged in direct contact with patients at an earlier stage of the program (1.3.2);
- The information and the facts about the structure (e.g. workload, study plan, credits) and the content (course descriptions, learning outcomes) of the study program should be communicated within and particularly outside of the University as precisely as possible (1.3.2);
- The College of Dentistry and the University in general should establish and consecutively implement a transparent institution-wide procedure of employment on teaching positions, in order to be able to comprehensively plan and arrange the teaching process in the study programs (1.3.5);
- The College of Dentistry should foster the involvement of the teaching staff in international academic exchange activities and scientific events. The University should therefore provide the necessary financial and organizational means for the participation in such events (1.3.5);
- The University should verify whether it can offer additional premises in order to meet the current needs of the students of the program “Dentistry” (1.3.5).

### Recommendations for all study programs assigned for accreditation:

- The University should consider offering the graduates an additional official document describing the respective program courses and competences obtained by the end of studies together with their graduation diplomas (1.3.1);
- The University should increasingly support its students during the transition period from the academic to professional sphere by establishing a Career Center and encouraging individual colleges and departments to organize more events and consultation opportunities, where students can meet the represent-

- atives of various professions and learn about the needs and expectations of prospective employers (1.3.1);
- The University should initiate national and international short-term exchange opportunities for the academic staff and the senior students of the program within the framework of the so-called “summer schools”. For this purpose, the University can effectively put into use its numerous contacts with various universities and institutions (criterion 1.3.1);
  - The University should consider the combination of the program courses into larger units, e.g. modules, which cover a bigger amount of learning material and are completed with one final examination. This might help to reduce the examination load of students (1.3.2 and 1.3.4);
  - The University should explicitly determine the amount of self-study hours and of the total workload of the study programs in a transparent manner. By means of questionnaires, it should assess and plan the number of hours students need to accomplish various tasks. Based on the obtained results, the University should compare and accordingly adjust the expected workload to the experience and learning capacities of students (1.3.2);
  - The University should adopt official regulations for students with special needs on the institutional level in order to guarantee a consistent and transparent approach in matters of academic, health and social support. These institution-wide regulations should determine the units or persons responsible for the organization of support measures for students with disabilities. Furthermore, these regulations should include program-specific requirements to the physical fitness of students (1.3.3 and 1.3.7);
  - The University should offer equal access to the existing learning resources for both female and male groups of students. Female students must have the same timeframe and opportunities for working at the library as their male peers (1.3.5);
  - The University should organize the final edition of the documents (reports, descriptions, results) prepared and submitted within the framework of evaluation accreditation procedures, both internal and external. The final edition should be implemented institution-wide and should ensure a coherent and uniform layout of all documents. In terms of content, the final edition should remove redundant information and make the documents as precise and subject-specific as possible (1.3.6);
  - The University should develop and to publish a concept of gender equality in the form of an official document. This document should serve as a clear and transparent statement that both female and male students and members of the



teaching staff, as well as other stakeholders of the University, are provided with equal opportunities and conditions to study and work at the University (1.3.7).

#### **4 Decision on the recommendation for accreditation**

The resolution of the Accreditation Commission of the AHPGS of 21 July 2016 is based on the University's application documents, the experts' written reviews and the results of the on-site visit described in the Expert Report. Moreover, the Accreditation Commission took into account the response opinion of the University regarding the study program submitted by the University on 6<sup>th</sup> July 2016 (attachment 1 to the final report). Associated with the response opinion, the University submits various module descriptions that illustrate the development of the program.

The on-site visit of the University took place on 2<sup>nd</sup> and 3<sup>rd</sup> May 2016 according to the previously agreed schedule.

The accreditation decision is based on the accreditation criteria of the AHPGS. They have been developed in close accordance with the existing standards and requirements valid in the Federal Republic of Germany and based on the "Standards and Guidelines for Quality Assurance in the European Higher Education Area" (ESG), established by the European Association for Quality Assurance in Higher Education (ENQA).

Taking into account the explanations in the response opinion, the Accreditation Commission of the AHPGS considers that all accreditation criteria are fulfilled and adopts the following decision:

The bachelor study program "Dentistry" completed with the academic degree "Bachelor of Dental Medicine and Surgery, B.D.S." is accredited. The regulated study period of the program is six years/12 semesters in full-time form followed by a one-year internship. The study program comprises 59 courses, ten of which are the preparatory year courses, 39 are the program-specific courses and ten are the university requirement courses. The study program is offered for both female and male students.

The study program "Dentistry" is accredited for the duration of five years, until 30 September 2021.

The Accreditation Commission of the AHPGS welcomes the response opinion of the University. It underlines the effort the University spends on the development of the study program.

## **Attachment 1: Response opinion of the University regarding the Expert Report**

The expert report was send to the University by Email at the 17.06.2016, the response opinion to the expert report was sent to AHPGS by Email at the 06.07.2016.