

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



Assessment Report

**of the application of
Umm Al-Qura University,
College of Public Health and Health Informatics,
Anesthesia Technology Department
for the accreditation of Bachelor study program
“Anesthesia Technology”**

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1 Introduction into the accreditation procedure

In order for the external assessment to be implemented, the University has commissioned the Accreditation Agency in Health and Social Science (further referred as AHPGS).

The AHPGS is listed in the European Quality Assurance Register (EQAR), Full Member of the International Network for Quality Assurance Agencies in Higher Education (INQAAHE), the European Association for Quality Assurance in Higher Education (ENQA) as well as accredited by the German Accreditation Council (currently until 2019).

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

The decision regarding the accreditation of each of the study programs of Umm Al-Qura University, Makkah, Kingdom of Saudi Arabia, is carried out by the Accreditation Commission of AHPGS.

The accreditation criteria of the Accreditation Agency in Health and Social Science (AHPGS) are the basis for the accreditation decision. These criteria can be found on the webpage of the AHPGS. 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).

The accreditation procedure is carried out in four steps:

I. The University's application

The AHPGS verifies the sufficiency of the documents submitted by the University, namely the application 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 regarding the content of the programs

Parallel to the first step, the main documents are reviewed by the expert group assigned by the accreditation commission of AHPGS. This is done in order to verify the compliance of the study program with the applicable accreditation criteria. Consequently, the experts comprise a short summary regarding the study programs.

III. On-site visit (Peer-review)

The experts carry out the external on-site visit at the University. During this, discussions with members of the University take place, from University and department administration to program management, teachers and students. This offers the expert group details about the degree program beyond the written documents. The task of the experts during the on-site visit is the verification and evaluation of the objectives of the program and its projected study results, its structure, staff, material resources, course of studies and methods of assessment (selection of students, assessment of achievements, students' support), as well as of the program management (program administration, external assurance of study quality).

Following the on-site visit, the expert group issues the expert report for each study program. This is based on the results of the visit, the written review of the study programs, and the documents submitted by the University. The expert reports are made available to the University, in order for it to issue a response opinion.

The expert report, as well as the University's response opinion – together with the submitted documents – is submitted to the accreditation commission of the AHPGS for the final decision regarding accreditation, accreditation with conditions or denial of accreditation.

IV. The AHPGS decision regarding accreditation

The accreditation commission of the AHPGS examines the documentation made available, namely the University's application, its annexes, the summary comprised by the AHPGS, the expert report, as well as the University's response opinion. These documents represent the basis of the commission's decision regarding the accreditation of the study programs.

2 Facts by the time of pre-visit-assessment

2.1 Procedure-related documents

The Application for accreditation (without the awarding of the official seal of the Accreditation Council of the Foundation for the Accreditation of Study Programs in Germany) of the above-mentioned study programs (hereinafter Application) of Umm Al-Qura University was submitted to the Accreditation Agency in Health and Social Science (AHPGS) in electronic format on the 1st of January 2014. The contract between the Umm Al-Qura University and the AHPGS was signed on the 26th of November 2013.

On the 17th of April 2014 the AHPGS forwarded the open questions and explanatory notes (hereinafter OQ) pertaining to the Application for accreditation for the study programs to the University. On the 12th of May 2014 the University submitted the answers to the open questions and explanatory notes (hereinafter AOO) to the AHPGS in electronic format.

The present document presents the summary of the AHPGS for the Bachelor study program "Anesthesia Technology". The first cohort of students was admitted to the program in September 2006.

The application and other relevant documents were submitted by Umm Al-Qura University following the outline recommended by the AHPGS. Along with the application request towards accreditation of the Bachelor study program "Anesthesia Technology", the following additional documents can be found in the application package (the documents submitted by the University are numbered in the following order for easier referencing):

Specific documents for the study program "Anesthesia Technology":

Annex	Description
1	Course Description
2	Module Overview
3	Study Plan
4	Teaching Interdependence Matrix
5	CV Teaching Personnel
6	Labor Market Situation
7	Equipment and Furnishing
8	Internship Information

9	Sample of Student Questionnaire
10	Quality Assurance
11	Description of Department/Faculty

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

Annex	Description
A	Rules of Study and Examinations of Higher Education
B	Formal Declarations of the University
C	Regulations for Non-Saudi Recruitment in Saudi Universities
D	Grading System
E	Handbook for Quality Assurance and Accreditation in Saudi Arabia
F	Student Questionnaires and Evaluation Forms
G	University Description

The application, the open questions (OQ) and the answer to the open questions (AOQ) as well as the additional documents build the basis for the present summary. The layout bears no significance, as it solely reflects the agreed standard within the University.

2.2 Study program

2.2.1 Structural data of the study program

University	Umm Al-Qura University
College/Department	College of Public Health and Health Informatics
Title of the study program	"Anesthesia Technology"
Degree awarded	Bachelor of Anesthesia Technology
Working language	English
Students' gender	Male only
Form of studies	Full-time
Time schedule	Saturday – Wednesday, 8.00 am – 2.45 pm
Period of education	8 Semesters plus one year internship
Total workload in hours	7.866

Workload distribution	Total ¹ : 7.866 hours Contact hours: 5.466 hours Individual work: 2.400 hours Practical hours: 1.140 hours Internship: 1.920 hours
Beginning of the study program	September 2010
First accreditation	Not applicable
Time of admission	Summer semester
Number of available places on the program	50
Number of enrolled students in 2013	86
Number of graduates by 2013	10
Particular enrollment conditions	- high school certificate or its equivalent - the specialized subject (Chemistry, Physics, Biology and English) rates not less than 90%
Tuition fees	No fees

Table 1: Structural Data of Study Program

The study program “Anesthesia Technology” is structured according to three main requirements on the level of university, college, and the specialization. The University requirement courses are spread throughout all eight semesters whereas the college requirement courses have to be accomplished during the first preparatory year of studies. According to the University, such a system supplies students with knowledge and skills in English language, methods of learning, introduction into professional medical sphere, and use of computer technologies that is essential for the successful continuation of studies.

2.2.2 Qualification objectives, labor market situation and employment opportunities

The main objective of the Bachelor program “Anesthesia Technology” is to prepare qualified specialists with thorough knowledge of concepts and methods applied in anesthesiology. Graduates of the program are expected to understand the dynamic relationships of human structures, recognize human

¹ Total hours do not include practical and internship hours.

anatomy, physiology, and pathophysiology as well as biological and physiological changes which can develop either due to normal aging processes or those of pathological reason. Furthermore, students have to be able to construct and implement a plan of anesthesia care. For this they must identify the relevant physical, psychological, and cultural needs of individual patients as well as communities (*see Application A2*).

As for cognitive and educational objectives of the program, students are trained to extract, analyze, and merge information from different sources, use problem solving and clinical reasoning skills in order to adapt a treatment plan according to a patient's well-being. Moreover, they have to be able to recognize and justify practical issues that provide opportunities for research. Since the professional occupation in anesthesiology presupposes constant contact with colleagues, patients, and their families, students have to learn the patterns of professional behavior and communication in clinical circumstances.

During the period of education students have to accomplish a research project. Such extensive engagement with the relevant data and orientation towards effective results develops students' critical independent thinking as well as academic writing and presentation skills. Furthermore, the program foresees regular use of modern computer and communication technologies along with diverse statistic methods for data collection and analyses. One year internship in one of health care centers is aimed at application and solidification of knowledge and skills acquired by students at the University.

The program "Anesthesia Technology" was designed and offered at Umm Al-Qura University for a number of reasons. According to the Application (A2.4), it is considered highly important for the country to develop a new generation of qualified medical specialists who are Saudi citizens. It is claimed that this will contribute to the development of national labor market and also improve the quality of medical services. Furthermore, sufficiency of Saudi educated specialists will decrease the need of anesthesiologists from other countries who might not always know the social and cultural characteristics of local patients. In the light of increasing demand for specialists in anesthesiology, introduction of such a study program in local educational institutions is considered by Umm Al-Qura University as highly relevant and important.

Although there is no data on the employment of the graduates of the study program as the first batch of students is finishing their internship, the University claims that the graduates of the program "Anesthesia Technology" can

work as anesthesia technologists in different medical centers, health educators in various educational establishments. They can also hold a position in hospital administration or in a research center. Hence, graduate students of the program can be employed in clinics, hospitals, specialized medical centers, research centers, governmental or private health care centers as well as military hospitals and medical colleges (*see Application A3.1*). The program also enables its students to continue their education further either abroad in international institutions or at the College of Public Health and Health Informatics, which offers 5 master programs (*see Question 5 in Answers to Open Questions*).

Saudi Arabian Ministry of Civil Service annually announces the number of available positions for graduates in anesthesiology. In addition, there is a new electronic system (Jadarah) in which the graduates fill out an electronic form containing their academic qualifications and personal statements for future contact in case there are available positions that fit their qualifications.

2.2.3 Modularization of the study program and exam system

The study programs of the College of Public Health and Health Informatics are structured according to the following three main requirements (see Annex 3):

University requirements include courses that all students of the University are obliged to attend regardless of which academic program they are affiliated with. Successful completion of these courses is required along with college and specialization requirements for graduation. These courses are dispersed throughout the whole process of education.

Semes.	Course Title	Attendance hours
3	Holy Quran	36
5		36
6		36
7		36 (total 144)
4	Islamic Culture	36
5		36
6		36
8		36 (total 144)
3	Arabic Language	36
4	The biography of Prophet Mohammed	36
Total: 360		

Table 2: Overview of University Requirements

College requirements include courses that all students of the College of Public Health and Health Informatics are obliged to pass in order to successfully continue their study at the program. These courses are all attended during the first preparatory year at the University.

Semester	Course Title	Attendance hours
1-2	English Language	648
1-2	Approach to Medical Sciences	360
1-2	Medical Physics	72
1-2	Learning Skills	36
1-2	Medical Profession Ethics	36
1-2	Computer Science	54
Total: 1.206		

Table 3: Overview of College Requirements

Specialization requirements include courses taught in a specific academic program. The difference in the content and units of these courses depends on the specialization being studied. These courses are usually offered starting with the second year/ third semester of the program.

The first preparatory year is shared by all programs within the College of Public Health and Health Informatics (Emergency Medical Services and Anesthesia Technology) and is intended to help students in the transition phase between high school and the university environment. Furthermore, it is meant to improve students' skills of reading and writing in academic English, to enable them to use various sources of information and learning methods.

The study program "Anesthesia Technology" comprises 45 obligatory modules, out of which 10 are university requirements, 10 are college requirements, and 25 modules are specific to the program. All modules have to be completed full-time within 8 semesters or 4 years (*Application A1.11, 1.12*). Each academic year contains University specific modules combined with either college specific or specialization specific modules. In the last fifth year the students are expected to do a mandatory one year (2 semesters) internship.

The total workload of the program "Anesthesia Technology" equals to 7.866 hours out of which 5466 are contact hours. The total amount of workload is determined by calculating the net contact time spent during classes, laboratory hours and in a formal teaching environment in addition to the individual study time of students.

The list of modules offered as specialization requirements:

Semes.	Course Title	Attendance hours
3	Medical Terminology	15
	Anatomy	60
	Physiology-1	60
	Pharmacology-1	30
	Introduction to Clinical Anesthesia	30
	Anesthesia Laboratory-1	60
	Clinical Practice	90
4	Physics for Anesthesia	30
	Physiology-2	60
	Pharmacology-2	30
	Clinical Anesthesia-1	30
	Principles of Airway Management-1	60
	Patient Monitoring and Instruments-1	60
	Clinical Practice	90
5	Clinical Anesthesia-2	30
	Principle Anesthesia	30
	Epidemiology	30
	Environmental Hygiene and Safety	60
	Anesthesia Laboratory-2	60
	Electrocardiograph (ECG)	15
	Medical Biostatistics	30
	Clinical Practice	90
6	Clinical Anesthesia 3	30
	Anesthesia Principles and Practices	30
	Practicum Seminar in Anesthesia Practices	30
	Pharmacology-3	30
	Patient Monitoring and Instruments- 2	60
	Principles of Airway Management -2	60
	Clinical Practice	90
7	Clinical Anesthesia-4	60
	Anesthesia Review 1	30

	Essentials of Critical Care Medicine	60
	Total Quality Management	30
	Clinical Practice	90
8	Directed Studies in Anesthesiology	30
	Problem Solving and Decision Making in Anesthesiology	30
	Anesthesia Review 2	30
	Scientific Research	90
	Principles of Health Care Management	30
	Clinical Practice	90
	Internship Year	1.920
Total: 3.870		

Table 4: Overview of Specialization Requirements

The course description covers the following aspects: description of the module, its educational objectives, content, and the examination structure (*see Annex 1*). The curriculum content of the program is claimed to share international aspects applied in the USA Universities and also in Sudan. Within the Kingdom of Saudi Arabia the program has no contacts. No ex-change opportunities are applicable (*see Application A1.14*).

Methods of teaching in the program "Anesthesia Technology" include lectures combined with different learning activities, such as group discussions, preliminary preparation of the class material by students, and their active input in the course of a lecture. Each semester, except for the introductory year, includes clinical practice. Another important technique of learning in the program is the implementation of a research project in the fourth year of studies. Hence, students have to conduct a research, write a paper on the obtained results and then present it. Finally, a full year internship in one of public general or specialized hospitals offers the soon-to-be graduates a whole range of learning situations. The electronic forms of instruction applied in the University include audio-visual displays, special teaching studio, data-show and video tapes. Distance learning is not envisioned.

Concerning the question of support and mentoring during the education period, the students of the program "Anesthesia Technology" are claimed to be under supervision of qualified staff members from the college who instruct students both during practical courses in the University laboratories and also

in clinical settings. Furthermore, students receive direct guidance from employed senior clinical instructors throughout the practical year in a health care institution (*see Annex 8*).

The students are claimed to be trained in modern hospitals equipped with all specialized facilities. The University gives the following list of hospitals that offer their settings and help in training the interns of the “Anesthesia Technology” Bachelor program: the National Guard Hospital, Al Noor Hospital, the Harra Hospital, the King Abdel Aziz Hospital, the King Fahd Military Hospital, and the King Faisal Specialized Hospital and Research Center (*see Question 7 in Answers to Open Questions*).

Quality assessment of the internship year is conducted by supervisors who write assessment reports on progress made by students during the hospital training. These practical training supervisors are chosen on the basis of their qualification in the given field, their academic resume, students’ feedbacks, and the results of external and internal assessment procedures. Quality assurance of the practical training is provided through students’ feedback, hospital’s feedback, and regular hospital supervisors meetings. Most importantly, all these procedures are under the direct supervision of quality assurance committee, college coordinator for quality assurance, and vice dean of students affairs. The future plan of the department is to invite external evaluators to attend students’ practical exams (*see Application A1.18*).

The program “Anesthesia Technology” includes a research project in the fourth year of education when each student has to submit a scientific research project related to the field of studies. As part of the *Scientific Research* course, the students apply different aspects of scientific research gained from the whole study program. A student’s research project is to be conducted in clinical settings with the help of objective measuring tools. Appointed college staff members direct and observe their students’ advancement in the project. Each research project is evaluated by an internal research committee. The most innovative research is nominated to the university conference and might be also presented at scientific conference of the Kingdom of Saudi Arabia (*see Application A1.19*).

Concerning the examination system of the program “Anesthesia Technology”, each module coordinator is responsible for structuring the examination system of their modules. Applied evaluation methods include written oral exams, presentations as well as assignments that evaluate knowledge and cognitive

skills. Observations, practical tasks, and competence checklists evaluate psychomotor skills. Examinations take place throughout the whole semester: two quizzes and two practical evaluations are conducted in each module during the course, and final exams (written, oral, and practical) are conducted in the last week of each semester (*see Application A.13*). Re-examination is possible at the beginning of the next semester, when a student misses the first regular exam due to an acceptable reason or fails the first trial. If a student fails the re-take exam, he or she will have to repeat the class next year.

The academic feasibility of the examinations and the evaluation methods in general is maintained through continuous monitoring of the program objectives and data on the academic performance by the internal evaluators committee as well as by the student academic guidance committee.

Grades system at Umm Al-Qura University is the following:

Percentage	Letter Grade	Grade	Point
95 – 100%	A +	Exceptional	4
90 – 94%	A	Excellent	3.75
85 – 89%	B +	Superior	3.50
80 – 84%	B	Very good	3.00
75 – 79%	C +	Above average	2.50
70 – 74%	C	Good	2.00
65 – 69%	D +	High pass	1.50
60 – 64%	D	Pass	1.00
<60%	F	Fail	0.00

Table 5: Grading System at Umm Al-Qura University

Regarding the compensatory measures for students with disabilities or chronic illnesses, the University stated that one of the main and basic conditions for the acceptance of new students in the department is to be physically and medically fit (*see Application 10.5*).

Admission requirements of the University include a high school certificate or equivalent acquired in Saudi Arabia or any other recognized school abroad with a general rate no less than 90%. It is also important for applicants to achieve high rates (not less than 90%) in the subjects of specialization: Chemistry, Physics, Biology and English. Apart from that, the applicants have to pass an admission test and an interview and be physically fit (*see Application 4*). It is the University Council who determines the number of students accepted to the program.

2.3 Conditions of studies and quality assurance

2.3.1 Human resources

The teaching staff of the study program “Anesthesia Technology” comprises 11 members employed on a full-time basis, out of which there are 2 professors, 1 associate professor, 3 assistant professors, and 5 lecturers. Besides, there are 3 clinical instructors.

Students are expected to complete their studies in the program “Clinical Nutrition” in 5 years: 4 years (8 semesters) at the University followed by one year of internship at a hospital or other institution of health care. The full enrollment capacity of the program is 50 seats, whereas the total number of students enrolled in the academic year 2012/2013 was 86. Hence a student-teacher ratio is approximately 8:1, which means that there are 8 students for every one teacher.

As reported in the Application (*B1.5*), the University offers its teaching personnel services and opportunities to improve their teaching effectiveness and the quality of education at the College in general. To be specific, they are encouraged to attend a number of training courses and meetings with university officials as well as participate in various workshops.

2.3.2 Material and space resources

The material establishment of the College of Public Health and Health Informatics comprises 5 lecture rooms each containing 35 seats and equipped with audiovisual screen, white board and a sound system. These rooms are also used for seminars. Furthermore, there are 6 skill laboratories used for students' practical training, all labs contain an audiovisual screen (*see Application B3.1*).

Students of the program can use three libraries situated within the University camp: the largest one, King Abdullah Bin Abdul-Aziz Library, is intended for the use of all students, the second is designed for medical studies, and the third one serves the specific interest of the College of Public Health and Health Informatics. The King Abdullah Bin Abdul-Aziz Library is open from Saturday to Wednesday from 8.00 am till 2.30 pm. (*Application B3.2*).

The main library is subscribed to 128 databases and the digital library of King Abdullah Bin Abdul-Aziz (<http://www.uqu.edu.sa/lib>) can be accessed 24

hours a day by all students using their usernames and password assigned by the college. It is important to notice that all English periodicals are in electronic form. The web page of the College of Applied Medical Sciences is accessible for all students of the College to get information concerning courses, examinations, marks and etc.

2.3.3 Quality assurance of studies

The University emphasizes its reliance on the recommendations of the National commission for Accreditation & Assessment (NCAAA), which was established in Saudi Arabia in order to determine the relevant standards and criteria of quality assurance (*see Annex G*). The quality assurance concept of the University relies on continuous monitoring and comparative evaluation of performance. Most importantly, these evaluations of performance must be based on evidence, whereas conclusions made as a result of this or that evidence must be independently verified afterwards.

The quality process relies predominantly on written evaluations of different forms such as questionnaires, tests, reports, and written feedback. There are also discussions and consultations organized by and for the committees, members of the teaching staff, and for students. Finally, quality assurance is regulated according to external standards, which are defined in this case by the NCAAA (*see Application A5.2, 5.3*).

Decision making structures of the University with regard to quality assurance include the College administration, the Dean, and the Institute authorities. At the end of each academic year they prepare an annual self-assessment report according to the template provided by NCAAA that contains information on important academic events and achievements. On its basis, they further develop an action-plan for the next period of studies. The obtained self-evaluation results serve the objectives to ensure the use of all educational resources available at the College. Along the same line, they help to design future plans of the program in alliance with the interests of the College as well as the whole University.

Students are actively involved into the processes of quality assurance. Their functions include writing feedbacks for teaching evaluation, filling in the course and a program evaluation forms (*see sample questionnaires in Annex F and Annex 9*). At the same time, students' academic and practical performance is also constantly evaluated through various examinations and reports

by teaching personnel and the internship supervisors. The Quality Department of the College analyzes the students' evaluation forms and passes the results to the staff, students and the administration of the College. The University claims that the results are accessible and transparent to all members of the College (*see Question 8 in Answers to Open Questions*).

Evaluation of teaching envisages improvement of teaching methods applied at the program and at the University in general. Moreover, such measures play a very important role for decisions concerning the duration of tenure, promotion or reappointment of the teaching personnel. Criteria of assessment in this case include course management and planning, support and monitoring of student projects and researches as well as their practical activity, and finally, professional development and innovative teaching. It is worthy to notice that the teaching staff involved in the program is expected to be committed not only to the improvement of their own performance but also the promotion of the quality of the program as a whole.

Relevance of the study program "Anesthesia Technology" to professional practice is provided by the fact that the courses are annually evaluated and reported in terms of the effectiveness and correspondence to their initial educational objectives. Furthermore, it is stated that the employment opportunities of program graduates are determined through regular meeting with prospect employers. Compatibility of the program's learning outcomes with the requirements of labor market relies on assessment reports by professional supervisors in hospitals and rehabilitation departments. The program's relevance to professional practice is also evaluated on the basis of surveys, interviews and reports gathered from teachers and students on whether the initial learning objectives were achieved and to what extent (*see Application A5.4*). The method of graduate surveys has not been used for there are not graduates of the program yet as the first cohort of students is currently finishing their internship (*see Question 3 in Answers to Open Questions*).

Coherence and consistency of the study program "Anesthesia Technology" is calculated on the basis of regulated class contacts, independent study time given for the completion of the set assignments, and the preparation phase for the final exams. Although it is easy to predict and plan the scheduled workload, last two sections are claimed to be difficult to measure. Thus, it is decided to rely on students' self-evaluation and independent work skills. Based

on the results of the questionnaire it is estimated how much time will be necessary for an average student for self-preparation.

Among the main channels of information about the study program and its details were named the official website of the college, academic guide booklets distributed for students at the beginning of each semester, and also student academic rules and regulations (*see Annex A*), which includes information on the attendance and the exam requirements. Moreover, assessment process that is discussed with students at the beginning of each semester similarly serves to acquaint them with methods of evaluation applied at the program.

Student guidance in terms of academic counselling is conducted with the help of booklets and through the information available on the College website, as was already mentioned. Needless to say, each member of the teaching personnel has regular office hours for student consultation. Furthermore, students receive help and guidance from qualified clinical instructors assigned to each of them during the internship period. Finally, feedbacks on students' examination results as well as monitoring of their general progress also function as means of motivation and support. The University aims at improving the counselling process through electronic communication in the university website and through e-mails (*see Application A5.8*).

Considering the question of gender equality the policy of Umm Al-Qura University requires complete separation between male and female students in teaching halls and laboratory facilities. It must be mentioned that there are only male students in the College of Public Health and Health Informatics. It must be mentioned that there are only male students in the College of Public Health and Health Informatics at the moment, because the nature of work is claimed to require good physical fitness (*Application A5.9*). The admission of female students is envisioned as soon as the appropriate material and space resources will be provided on the same qualitative and quantitative level as in the male section.

2.4 Institutional context

Umm Al-Qura University has developed through three historical phases. Its kernel College of Sharia (Islamic Law) was established in 1949 in Makkah as the first higher education institution of the country. Later it was renamed as the College of Sharia and Education though soon they became two independ-

ent academic entities. During the second phase of development, namely in 1971, the Colleges of Sharia and Education became part of King Abdul Aziz University in Jeddah.

The third phase is prominent due to the fact that the educational institution was officially titled as "Umm Al-Qura University" according to the royal decree Nr. 39 issued on 30 July 1981. The University comprises at the moment 29 colleges and two Institutes, which offer Bachelor, Master, and PhD level study programs in Islamic Studies, Arabic Language, Education, Social Sciences, Applied Sciences, Medicine, Applied Medical Sciences, Pharmacy, Dentistry, Business Administration, and Engineering.

Umm Al-Qura University spans over three campuses in the holy city of Makkah with its main and new campus in Al-Abdiyah in the south of Makkah. The old campus of the University at Al-Aziziyah and a girls' campus at Al-Zahir, are situated near the city center. At present, a University's own hospital is under construction.

The current total number of students enrolled at the University amounts to 67.705 students (27.653 male and 40.052 female students) and this number is yearly increasing. The University has been pursuing its ambition to become the first choice educational institution within Saudi Arabia and one of the ten top universities of the Arab World. Furthermore it aims at acquiring the worldwide authority for accrediting educational programs related to Islamic studies and Arabic language (see Annex G).

In the light of such objectives, it is of great importance for the University to get accreditation for all its educational programs, departments, and colleges both from national and international accreditation agencies. For this purpose, the programs are being reviewed and adapted according to the international standards. As a result of such measures, educational programs can be designed in line with the demands of the local community and simultaneously those of the global job market.

Another essential priority of the University is to develop scientific research opportunities. The University plans to achieve this by encouraging private sector investment and by creating dynamic research groups as well as research excellence centers. These centers are expected to enhance cooperation among different disciplines within the University.

According to the provided information, the University pursues also the strategy on the improvement of its infrastructure. Thus, in order to accommodate and provide the necessary facilities for the yearly increasing number of students and teachers, the University has launched a construction project of a new medical city and a campus.

The Medical Sciences Department was established in 1983 by the decision of the University Supreme Council. The first batch consisting of 20 students was admitted in 1985. The College of Public Health and Health Informatics was founded in 2010 and the first batch of students was also admitted in the same year. As per data for 2013, there were 238 students studying at the College of Public Health and Health Informatics. The College encompasses 8 departments and offers 2 Bachelor program ("Emergency Medical Services" and "Anesthesia Technology") as well as 5 Master programs ("Information Management and Health Informatics", "Health Promotion and Health Education", "Environmental Health", "Public Health" and "Epidemiology").

3 Expert reports

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I. Preliminary remarks

Study programs of Umm Al-Qura University, Makkah, Kingdom of Saudi Arabia, are required by the decision of the University to be accredited by an international accreditation agency. The accreditation criteria of the Accreditation Agency in Health and Social Science (AHPGS) are the basis for the accreditation decision. These criteria can be found on the webpage of the AHPGS². 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).

The criteria are divided as follows:

- 1) Program Aims and Learning Outcomes
- 2) Curriculum Design
- 3) Staff
- 4) Facilities and Learning Resources
- 5) Study Process and Student Assessment
- 6) Program Management

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

The evaluation of the following study programs offered at Umm Al-Qura University, with the subsequent decision on their accreditation by AHPGS, was carried out according to an agreed structure.

As a first step, the documents submitted by the University were reviewed by all nominated experts with regard to the specified criteria as well as disciplinary and substantive aspects.

²http://ahpgs.de/wp-content/uploads/2014/11/accred_criteria.pdf

As a second step, a part of the nominated expert group implemented an on-site visit at Umm Al-Qura University, Makkah, Kingdom of Saudi-Arabia with the focus of clarification of open aspects as well as verification of the statements described in the documents of the University.

The third step had been 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 study program will be discussed in a comprehensive manner as follows. The documents of the university, the feedback from the experts to the documents and the results of the discussions with the representatives of the University during the on-site visit serve as basis for the statements made in the Expert Report.

The last step is the decision regarding the accreditation of the study program of Umm Al-Qura University, Makkah, Kingdom of Saudi Arabia. The decision is carried out by the Accreditation Commission of AHPGS.

The following study programs were the subjects of the accreditation procedure:

College of Applied Medical Sciences:

- a) "Clinical Nutrition" (Bachelor of Applied Medical Sciences (Clinical Nutrition));
- b) "Health Management" (Bachelor of Applied Medical Sciences (Health Management));
- c) "Laboratory Medicine" (Bachelor of Applied Medical Sciences (Laboratory Medicine));
- d) "Physiotherapy" (Bachelor of Applied Medical Sciences (Physiotherapy)).

College of Nursing:

- e) "Nursing" (Bachelor of Nursing);

College of Public Health and Health Informatics:

- f) "Anesthesia Technology" (Bachelor of Anesthesia Technology);
- g) "Emergency Medical Services" (Bachelor of Emergency Medical Services).

II. Expert Group

The following experts were appointed by the Accreditation Commission of the AHPGS for the evaluation of the study programs:

As representatives of higher education institutions:

Prof. Dr. Thomas Bals³

Professor of Vocational Education, School of Education and Cultural Sciences, Vocational Education, Training and Policy, University of Osnabrück

Prof. Dr. Axel Olaf Kern

Professor of Health Economics, Department of Social Work, Health and Nursing, University of Applied Sciences, Ravensburg - Weingarten, Germany

Prof. Dr. Kathrin Kohlenberg-Müller

Professor of Clinical Nutrition, Head of Master of Science program "Public Health Nutrition", University of Applied Sciences Fulda, Germany

Prof. Dr. Stephan Lehnart

Professor of Translational Cardiology, Clinic of Cardiology and Pneumology, University Medical Center Goettingen, Georg-August-University Goettingen, Germany; Visiting Professor of the Biomedical Research and Medical Technology Center (BioMET), University of Maryland Medical School

Prof. Dr. Birgit Vosseler

*Professor of Nursing Science, Faculty of Social Work, Health and Nursing, University of Applied Sciences Ravensburg-Weingarten, Germany
Visiting Professor at the School of Nursing at Shandong University, China and at KwaZulu Natal University, South Africa*

Prof. Dr. Mieke Wasner

Professor and Dean of Studies for Physical Therapy, Heidelberg University of Applied Sciences, Germany

³ The people shown in italics have participated in the on-site visit.

Prof. Dr. Christel Radmacher

Professor of Applied Nutrition and Dietetics, University of Applied Sciences Niederrhein, Germany

Prof. Dr. med. Johann Weidringer

Professor and leader of the study program Health Management, University of Applied Sciences in Health and Sport, Berlin, Germany; Member of the Bavarian state medical association, responsible for advanced training and quality management for emergency medical services

Prof. Dr. Beate Klemme

Professor of Physiotherapy, Department of Nursing and Health, Bielefeld University of Applied Sciences, Germany

Dr. Dirk Häger

University Medical Centre of Hamburg

Prof. Dr. Peter Dieter

Professor of Biochemistry, Institute of Physiological Chemistry, Medical Faculty, Dresden University of Technology, Germany

Prof. Dr. Axel Mühlbacher

Professor of Economics, Health Economics and Econometrics
Head of the Institute for Health Economics and Medical Management,
Neubrandenburg University of Applied Sciences, Germany

Prof. Dr. Cornelia Oertle

Head of the Health Department, Professor of Health Economics, Bern University of Applied Sciences, Switzerland

Dr. Ulrich Stößel

Department of Medical Psychology and Medical Sociology, University of Freiburg, Germany

Beate Methke

University Medical Center of Freiburg, Germany

Prof. Dr. Dr. Friedrich Hofmann

Professor of Labor Psychology, Occupational Medicine and Prevention of Infections, University of Wuppertal, Germany

As student representatives:

Kai Thorben Selm

Emergency Medical Assistant, Student of Human Medicine, Ludwig-Maximilian University of Munich, Germany

Mathias-Maximilian Dilger

Student of Human Medicine, Albert Ludwig University of Freiburg, Germany

III. Expert report

Simultaneously with the above procedure, the Accreditation Commission of AHPGS nominated the expert group. On the 17th of February 2014, the relevant documents of the study program were made available to the group of experts for the document review with regard to the specified criteria as well as the disciplinary and the substantive aspects. The expert statements from the document review were also used as guide to prepare the site visit at the University.

After the University had submitted their responses to any open questions by 12th May 2014, the AHPGS processed these comments and complemented the summary report with these answers as appropriate. The self-evaluation report, its accompanying documents, and the summary of the study program were forwarded to the members of the expert group assigned to and in time for the on-site visit.

The On-Site Visit occurred 2nd and 3rd of November 2014 and according to the previously agreed schedule. Representatives from the central office of AHPGS accompanied the expert group during the site visit.

The expert group met on the 1st of November for an initial discussion and briefing by AHPGS prior to the site visit. They discussed the submitted application documents and the results of the written evaluation as well as any related questions and foreseeable problems. Furthermore, they prepared the plan of the site visit at Umm Al-Qura University, and the associated logistics of transportation.

On site, the experts conducted open discussions with the University management, leading representatives of different Faculties, program directors and teachers, as well as with different groups of students in each Faculty. Furthermore, some facilities including the library were evaluated for 1-2 hours on site.

The expert report is structured in compliance with the accreditation criteria approved by the AHPGS. The study program will be discussed in a comprehensive manner as follows. The documents of the university, the feedback from the experts to the documents, the impressions of the on-site visit and the results of the discussions with the university community serve as basis for the statements made in the Expert Report.

(0) Introduction and comprehensive remarks

Umm Al-Qura University, Makkah, Kingdom of Saudi-Arabia, was established in 1949 in Makkah as the first higher education institution of the country. In 1981 the University was officially titled as "Umm Al-Qura University".

Currently, the University comprises 29 colleges and two Institutes, which offer Bachelor, Master, and PhD level study programs in Islamic Studies, Arabic Language, Education, Social Sciences, Applied Sciences, Medicine, Applied Medical Sciences, Pharmacy, Dentistry, Business Administration, and Engineering.

Umm Al-Qura University spans over three campuses in the holy city of Makkah with its main and new campus in Al-Abdiyah in the south of Makkah. At present, the new University Hospital and several associated buildings are under construction.

The current total number of students enrolled at the University amounts to 67.705 students (27.653 male and 40.052 female students). Importantly, this number is increasing quite rapidly due to the given demographic growth of the population.

The University has been pursuing its ambition to become a first choice as educational institution within Saudi Arabia and one of the top ten Universities of the Arab World.

In the light of these outstanding objectives, it is of great importance for the University to establish formal accreditation for all its study programs, departments, and colleges both through national and international accreditation agencies.

For this purpose, the different programs have been reviewed and adapted to international standards. As a result of these measures, the study programs were also designed in line with the needs of the local community and simultaneously with those of the global job market.

Another essential priority of the University is to develop scientific research opportunities. The University plans to achieve this by encouraging private sector investments and by creating dynamic research groups as well as research excellence centers. These centers are also expected to enhance cooperation among different disciplines within the University.

According to the provided information, the University pursues the strategy of continuous improvement and modernization of its infrastructure. Thus, in order to accommodate and provide the necessary facilities, in particular for currently yearly increasing number of students and teachers, the University has launched a large construction project for a new medical campus and city.

The study programs to be accredited are located at the following three colleges:

- a) College of Applied Medical Sciences
- b) College of Nursing and
- c) College of Public Health and Health Informatics

The Medical Sciences Department was established in 1983 by the decision of the University Supreme Council. The first batch consisting of 20 students was admitted in 1985. In 2005, the Department of Medical Sciences was separated from the College of Medicine and was changed into the "College of Applied Medical Sciences".

The Nursing Department was established in the College of Applied Medical Sciences and the first batch of students was admitted to the program in 2006. In the academic year 2011-2012, it became a separate College with three departments: Nursing Practice, Department of Community Nursing and Health care for Mass, Department of Nursing Sciences and Researches. There is one bachelor program of "Nursing" offered by the College.

The College of Public Health and Health Informatics was founded in 2010 and the first batch of students was also admitted in the same year. The College encompasses 8 departments and offers 2 Bachelor programs ("Emergency Medical Services" and "Anesthesia Technology") as well as 5 Master programs ("Information Management and Health Informatics", "Health Promotion and Health Education", "Environmental Health", "Public Health" and "Epidemiology").

Overall, the objectives of the study programs in connection to their structure, as well as to the overall vision of the University, show that the University is successfully pursuing the realization of its goal to provide higher education and graduate studies in order to enable citizens to contribute to the development of the Kingdom of Saudi-Arabia.

(1) Program Aims and Learning Outcomes

The study program “Anesthesia Technology” offered by the College of Public Health and Health Informatics is a male-only Bachelor study program that is designed as a full-time program with an intended duration of 8 semesters (4 years) theoretical studies at the university. Moreover, the students have to pass a twelve-month university-supported internship after finishing their studies at the university. Upon completion of their studies and internship period, students of the program are awarded with the Bachelor of Anesthesia Technology degree. The study program comprises of 45 mandatory modules and is taught mainly in English. The program does not require a final thesis; however, in their last semester students have to attend a Scientific Research course. In the fifth year, the students are expected to do an obligatory one-year internship. The “Anesthesia Technology” Bachelor study program was first launched in September 2010. In order to be admitted to the program, applicants are required to hold a high school certificate or its equivalent and have a degree not lower than 90% (Excellent) in specialized subjects (i.e. Chemistry, Physics, Biology and English). Apart from that, the applicants have to pass an admission test and an interview; they have to be physically „fit“. No tuition fees are applicable to the study program.

With the “Anesthesia Technology” (Bachelor of Anesthesia Technology) Bachelor program, the Umm Al-Qura University prepares qualified specialists with thorough knowledge of concepts and methods applied in anesthesiology. Graduates of the program are expected to understand the dynamic relationships of human structures, recognize human anatomy, physiology, and pathophysiology as well as biological and physiological changes which can develop either due to normal aging processes or those of pathological origin or during elective procedures such as anesthesia. Furthermore, students have to be able to construct and implement a plan of anesthesia care. For this, they must identify the relevant physical, psychological, and cultural needs of individual patients as well as communities. As for cognitive and educational objectives of the program, students are trained to extract, analyze, and merge information from different sources, use problem solving and clinical reasoning skills in order to adapt a treatment plan according to a patient’s well-being. Moreover, they have to be able to recognize and justify practical issues that provide opportunities for research; therefore critical thinking should be promoted throughout the entire course. Since the professional occupation in anesthesiology presupposes constant contact with colleagues, patients, and their fami-

lies, students have to learn the patterns of professional behavior and communication in clinical circumstances. The graduates of the program can work as anesthesia technologists in different medical centers or as health educators in various educational establishments. They can be employed in clinics, hospitals, specialized medical centers, research centers, governmental or private health care centers as well as military hospitals and medical colleges. The program also enables its graduates to continue their education further.

Overall, it can be stated, that the program is based on qualification goals. These include disciplinary aspects, e.g. in study program specific modules like "Introduction to Clinical Anesthesia" or "Anesthesia Laboratory-1". Also interdisciplinary aspects, common to all professional medical training, are included, such as "Anatomy" or "Environmental Hygiene and Safety". Related to the area of academic ability, the research project in the 8th semester has to be highlighted. Regarding the skilled employment, in particular the internship has to be mentioned, which is organized by the university. Regarding the ability of socio-union commitment and personal development, the first preparatory year has to be mentioned. Here, all students have to study religious subjects as well as broader subjects like English Language or Computer Science.

From the expert point of view, the mission of the program is consistent with the mission of the University: first, to satisfy the increasing demand for medical staff in the relevant sphere health care sciences; second, to train native Saudi specialists and thus to reduce the dependence on specialists from abroad. By these means, the University hopes to contribute to the development and expansion of the national labor market and also to the improvement of the general quality of medical services within the country.

The mission is applied to the particular goals and requirements of the program concerned. The program's principal purposes and priorities are clearly and appropriately defined as well as influential in guiding planning and action.

While the curriculum of the degree is very extensive, the focus on skills such as communication (in varying situations ranging from standard (e.g. induction of anaesthesia) to more critical situations (e.g. difficult airway) or interdisciplinary (e.g. polytrauma management) and team resource management may be intensified. Moreover, being crucial to the efficient functioning of the health care system also in rare situations such as mass casualty events or disasters, these settings and conditions may be simulated and practiced involving various health care staff, ranging from nurses to physicians, maybe even physio-

therapists or others whose expertise lies in the secondary treatment of patients, may be promoted. As the medicine of catastrophes is fundamentally different to the primary care of one or just a few patients, the potentially immediate shift between these needs to be anticipated; thus, at university level a combined practice setting and sensitization can be promoted.

Considering the possibility of postgraduate education, research or teaching activities, the exposure to scientific practice, appropriate topics, such as statistics, scientific methodology or critical thinking, should be addressed as early as possible and sufficiently prior to the completion of a compulsory Bachelors-Thesis. Therefore, academic staff should be involved in academic research covering degree-related topics rigorously. Reports and smaller versions of papers (e.g. mini projects) may promote the scientific writing ability of the student throughout the course.

In view of possible teaching activities following to the degree and its subsequent training, the opportunities of postgraduate education need to be extended to didactical and methodological teaching and training schemes as well as appropriate continuous skill development.

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

Considering recommendation for future development, the experts underline that the University should work in two directions: one is to encourage and enable further scientific engagement for the teaching staff, and the other is to offer continuous academic study opportunities for students. This can be achieved through the introduction of master's level programs. It should be kept in mind, that not every program needs its own master. Instead, a restricted number of master programs may cover a relatively broad range of study subjects with a focus on general competences, particularly those necessary for implementation of scientific research in the form of smaller research projects with carefully planned and documented experiments, to achieve scientific paper output, in order to document and increasingly compete in a specific area of health science.

For future teaching staff, the above mentioned Master programs may provide a substantial professional environment to learn new methodologies of academic teaching and research techniques in a particular area of health sciences in

order to prepare prospective staff for teaching obligations, particularly for Bachelor students.

Moreover, the responsible persons of the University may want to think about introducing the possibility to offer specific study programs for employees that lead to higher, for example Master level degrees, for instance in the area of health management and health economics or other areas most relevant to regional needs.

For students, Master programs should be seen as an opportunity to design, plan, accomplish and then present a complete and to some degree also independent scientific research project representative for and focused on a specific area of medical sciences. The important goal is then that the program offers the necessary tools and means, whereas the student performs the main part of the master work to some degree independently but also under supervision for good scientific practice by a qualified scientific supervisor.

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

(2) Curriculum Design

The study programs of the College of Public Health and Health Informatics are structured according to the following three main requirements:

University requirements include courses that all students of the University are obliged to attend regardless of which academic program they are affiliated with. Successful completion of these courses is required along with College and specialization requirements for graduation. These courses are dispersed throughout the whole process of education.

College requirements include courses that all students of the College of Applied Medical Sciences are obliged to pass in order to successfully continue their study at the program. These courses are all attended during the 1st preparatory year at the University.

Specialization requirements include courses taught in a specific academic program. The difference in the content and units of these courses depends on the specialization being studied. These courses are usually offered starting with the second year/ third semester of the program.

The study program "Anesthesia Technology" comprises 45 obligatory modules, out of which 10 are university requirements, 10 are college requirements, and 25 modules are specific to the program. All modules have to be completed full-time within 8 semesters or 4 years. Each academic year contains University specific modules combined with either college specific or specialization specific modules. In the last fifth year the students are expected to do a mandatory one year (2 semesters) internship.

The first preparatory year is shared by all programs within the College of Public Health and Health Informatics (Emergency Medical Services and Anesthesia Technology) and is intended to help students in the transition phase between high school and the university environment. Furthermore, it is meant to improve students' skills of reading and writing in academic English, to enable them to use various sources of information and learning methods. Students are expected to complete their studies in the program "Anesthesia Technology" in 5 years: 4 years (8 semesters) at the University followed by one year of internship at a hospital or other institution of health care.

Experts underline as positive, the fact that courses are well structured and planned within the academic year, particularly basic courses and also practical training of students, which contributes to the realization of the program objectives. To conclude, the program is consistent with the mission of the University to develop a new generation of qualified specialists in medical sciences, who are well acquainted with health care needs and also cultural characteristics of the local community.

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

(3) Staff

Overall, the teaching and academic staff of Umm Al-Qura University shows a very high level of commitment and potential for the execution as well as further development of the study program they are responsible for. The expert group came to the conclusion that there is a strong corporate identity and positive group dynamics among the university and faculty administrations.

The teaching staff of the study program "Anesthesia Technology" comprises 11 members employed on a full-time basis, out of which there are 2 professors, 1 associate professor, 3 assistant professors, and 5 lecturers. Besides, there are 3 clinical instructors.

The full enrollment capacity of the program is 50 seats, whereas the total number of students enrolled in the academic year 2012/2013 was 86. Hence a student-teacher ratio is approximately 8:1, which means that there are eight students for one teacher.

Regarding the employment process, the qualification and experience of the teaching staff is closely evaluated prior to the appointment decision. The experts have admitted that the instructors involved in study programs reveal a high level of competency in the relevant field of medical studies. However, it needs to be ensured that the means of delivery of the knowledge to the student underlies a high quality as well, i.e.g. that teaching methodologies are of the same high standards.

New teaching staff is thoroughly briefed about the program and their teaching responsibilities before they can start working. Teaching skill development must be accessible to any member of staff and should regularly be used.

Students evaluate performance of all teaching and other staff periodically.

For continuous professional growth and academic development of the teaching staff, the experts recommend introduction of new Master's degree study programs, as it has been mentioned earlier.

Implementation and management of the named study programs is a relatively challenging task and requires a high level of continuous engagement and of highly qualified specialists, who are well trained not only in their sphere of medical health care, but also in pedagogical and didactical sciences, and scientific research activities. Hence, the experts believe that by offering one or two general Master programs for the field of applied medical sciences, the University could cultivate its own team of young teachers with a scientific background, who will then teach Bachelor program students in the traditions of the institution.

Moreover, given that an increasing number of students will increasingly rely on this program, the University should carry out further development and preparation tasks for related teaching staff in full quantitative and qualitative adequacy. These observations and conclusions are also in line with discussions with students.

To encourage academic and pedagogical development of the teaching staff and also to provide such opportunities for those teachers who want to contin-

ue their education, the experts suggest to introduce additional incentives such as optional courses or workshops, where instructors from different programs can share their experiences, learn from each other, and develop an environment of scientific exchange. This would further engage the University to prepare new instructors who are trained according to the didactic requirements and the curricular needs of this particular institution.

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

(4) Facilities and Learning Resources

The University maintains several auditoriums for lectures and seminars, an auditorium for special purposes with translation equipment, and a number of reading and internet rooms in the college. There are sufficient classrooms throughout the university camp to conduct courses with larger as well as smaller number of students.

Students of each program can use two libraries situated within the University camp: the largest one, King Abdullah Bin Abdul-Aziz Library, is the University library intended for the use of all students, the second one is designed for medical studies. The library for the medical studies offers ample print and internet resources for academic research. Students can order books or find necessary scientific publications on the official website of the university library. It is considered worthy to underline the adequate number and high quality of computer stations available for students' use. The University library is used by male students, whereas female students can order books they need, which are delivered to the college library. The main library is subscribed to 128 databases and the digital sources of King Abdullah Bin Abdul-Aziz library (<http://www.uqu.edu.sa/lib>) can be accessed 24 hours a day by all students using their usernames and password assigned by the college. All English periodicals are in electronic form.

From the experts' point of view, the learning resource materials and associated services are consistent with the requirements of the programs and the courses offered by them.

Information about required learning material and equipment is prepared and is made available by teaching staff prior to the beginning of the course they are responsible for. Regarding quality assurance aspects, staff and students are involved in evaluations of the material and learning resources.

The study program “Anesthesia Technologies” is located at the College of Public Health and Health Informatics. The material establishment of the College comprises 5 lecture rooms each containing 35 seats and equipped with audiovisual screen, white board and a sound system. These rooms are also used for seminars. Furthermore, there are 6 skill laboratories used for students' practical training, all labs contain an audiovisual screen. The college has its own library, which serves the specific interest of the College of Public Health and Health Informatics.

To summarize, the experts conclude that the material, equipment, learning resources, including literary reference materials as well as computer terminals, are provided in an appropriate manner. They vary according to the nature of the program and the approaches used for teaching.

It was observed that the University ensures appropriate access and provides special equipment for students with disabilities to move within the University buildings, such as automated transport chairs at staircases, for example. Additional facilities are also provided for sport and leisure activities (such as a gym with modern equipment).

The equipment acquisitions meet program requirements and are consistent with institutional policies to achieve compatibility of equipment and software systems across the institution.

From an external point of view the facilities and equipment are of good quality. The college moreover has effective strategies to evaluate their adequacy for the “Anesthesia Technology” program. All facilities meet health and safety requirements.

Standards of provision of teaching, laboratory and research facilities are adequate for the program. Adequate facilities are provided for confidential consultations between teaching staff and students. Here, the modern technologies for teaching between male teachers and female students are mentioned positive by the expert group.

Management and administration of facilities, equipment and associated services is efficient and ensures maximum effective utilization of facilities provided.

Regarding the Information Technology Computing equipment and software and related support services are adequate for the program and managed in ways that ensure secure, efficient and effective utilization.

To conclude, the program has adequate facilities and equipment as its disposal for the teaching and learning requirements. The use of facilities and equipment is monitored as part of the quality assurance of the program.

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

(5) Study Process and Student Assessment

As written in the introduction, the study program under consideration is offered by the College of Public Health and Health Informatics.

The programs' administration provides effective leadership and reflects on the appropriate balance between accountability to senior management and the governing board of the institution within which the program is offered, and provides sufficient flexibility in order to meet the specific requirements of the program. The decision making structures of the University with regard to quality assurance include the College administration, the Dean, and the Institute authorities.

Planning processes involve stakeholders (eg. students, professional bodies, industry representatives, teaching staff) in establishing goals and objectives and reviewing and responding to the results achieved.

The study program "Anesthesia Technology" is offered for male students only. Admission of female students is envisioned as soon as the appropriate material and space resources will be provided on the same qualitative and quantitative level as in the male section, particularly teaching personnel.

Umm Al-Qura University affirms its commitment to the arrangement of equal opportunities for all students. Learning resources are similar in both female and male sections. As the experts confirmed, there effective communication is visible between all parties involved and includes equitable involvement in planning processes.

The quality provided for courses and the program as a whole must be regularly monitored with adjustments made promptly in response to this and later feedback and to developments in the external environment affecting the pro-

gram. A useful tool for this may be a compulsory progress test, which hints the University of any Area of neglect within the degree and provide valuable feedback to the student.

The admission process for the program is efficient, fair, and responsive to the needs of students entering the program.

Admission requirements of the University include a high school certificate or equivalent acquired in Saudi Arabia or any other recognized school abroad with a general grade rate no less than 90%. It is also important for applicants to achieve high rates (not less than 90%) in the subjects of specialization: Chemistry, Physics, Biology and English. Apart from that, the applicants have to pass an admission test and an interview and be physically "fit". It is the University Council who determines the number of students accepted to the program.

Regarding the compensatory measures for students with disabilities or chronic illnesses, the University stated that one of the main and basic conditions for the acceptance of new students in the department is to be physically and medically "fit". Here, the experts recommend to outline the standards and criteria for "physical fitness" and to make them transparent, e.g. on the web site of the department.

Information about the program, its admission requirements and other details relevant to the program, is available on the web site of the University. During the discussions with students, it became obvious that they are overall content with the information system and the information provided throughout all stages of their education. Mechanisms for student appeals and dispute resolutions are clearly described, made known, and fairly administered. Academic counselling and career advice in the given field of study are offered. The web sites of each respective college is accessible for their students to get information concerning courses, examinations, marks etc.

As a whole, the experts mentioned the open and constructive atmosphere characteristic for the colleges. During the on-site Visit, the University demonstrated that it their students and their development goals are indeed an important focus of the teachers and the organizational staff of the University.

The objectives as well as the students' learning outcomes through the study programs in connection to the given structure of the programs show that the

University is successfully pursuing the realization of its goals to develop nationally relevant study programs. The learning outcomes are clearly specified.

The experts have been impressed by the system applied in the evaluation of the teaching quality and the effectiveness of programs at Umm Al-Qura University. Student assessments, graduate and employer surveys with evidence from these sources are used as the basis for improvement plans. As a further step, the experts recommend to include in addition to the quantitative measures of evaluating the quality of teaching and learning also more qualitative steps, in particular qualitative discussions among the students and teachers for example. Moreover, the University should make the results of the evaluations available to all people involved – teachers and students - to support this important process and to encourage a trustful teaching environment and to motivate engagement by all stakeholders. Taking these observations into account, deeper discussions regarding the quality of teaching and learning could be implemented.

The standards of learning are assessed and verified through appropriate processes and benchmarked against demanding and relevant external reference points, for instance other universities in the Kingdom of Saudi Arabia. The standards for male and female sections are the same at all levels, including learning resources provided. The evaluations include data for each section. The experts are sure that with the development of new buildings for some colleges, the situation for both male and female students will be improved over the next years. The University should be aware of its responsibility to provide equal development opportunities for both male and female teaching units at the University.

The expert group concludes that the requirements of the criterion are partly met. The University should outline the standards and criteria for “physical fitness” and make them transparent, e.g. on the web page of the department.

(6) Program Management

During the discussions with the college management, it became clear that the quality assurance concept of the University relies on continuous performance monitoring and comparative evaluations of performance. The evaluations are mostly based on evidence. The quality process relies predominantly on written evaluations in different forms, discussions with the teaching staff and students, and finally on the relation to external quality standards. The college has to prepare an annual self-assessment report that contains information on im-

portant academic events and achievements. On this basis, an action-plan for the next period of studies is prepared. During the talks, both female and male students confirmed that they are actively involved in these processes of quality assurance. Their functions include written feedbacks for teaching evaluations, and filing of the course and a program evaluation forms. At the same time, students' academic and practical performance is also constantly evaluated through various examinations and reports by internship supervisors. Evaluation of teaching envisages improvement of teaching methods applied throughout the program and at the University in general. Moreover, such measures play a very important role for decisions concerning the duration of tenure, promotion or reappointment of the teaching personnel. Criteria of assessment in this case include course management and planning, supporting and monitoring of student projects and researchers as well as their practical activity, and professional development and innovative teaching.

From the expert point of view, it is worthwhile to notice that all staff involved in the program is expected to be committed not only to improving their own performance but also the promotion of the quality of the program as a whole.

Relevance of the study program "Anesthesia Technology" to professional practice is provided by the fact that the courses are annually evaluated and reported in terms of the effectiveness and correspondence to their initial educational objectives. Employment opportunities of program graduates are determined through regular meeting with prospect employers. Compatibility of the program's learning outcomes with the requirements of labor market relies on assessment reports by professional supervisors in hospitals and rehabilitation departments. The program's relevance to professional practice is also evaluated on the basis of surveys, interviews and reports gathered from teachers and students on whether the initial learning objectives were achieved and to what extent. The method of graduate surveys has not been used for there are not graduates of the program yet, as the first cohort of students is currently finishing their internship.

Coherence and consistency of the study program "Anesthesia Technology" is calculated on the basis of regulated class contacts, independent study time given for the completion of the set assignments, and the preparation phase for the final exams. Although it is easy to predict and plan the scheduled workload, last two sections are claimed to be difficult to measure. Thus, it is decided to rely on students' self-evaluation and independent work skills. Based

on the results of the questionnaire it is estimated how much time will be necessary for an average student for self-preparation.

Teaching and other staff involved in the program must regularly evaluate and document their own performance and be personally committed to improving both their own performance and the quality of the program as a whole. Regular evaluations of quality are undertaken within each course based on valid evidence, relevant performance indicators, and appropriate benchmarks; subsequent plans for improvement are made and implemented. Central importance is given to student learning outcomes with each course contributing to the achievement of the overall program objectives.

The University has developed a research strategy that is consistent with the nature and mission of the institution. All staff teaching in the programs is involved in sufficient appropriate scholarly activities to ensure that they remain up to date with developments in their field and that these developments are reflected in their teaching. Here, meetings and conferences have to be mentioned, where the staff takes part in the country as well as abroad.

Adequate facilities and equipment are available to support the research activities of the teaching staff to meet these requirements in areas relevant to the program. Staff research contributions must be recognized and reflected in evaluation and promotion criteria.

Regarding the development of the research activities, the experts recommend teachers to encourage research among bachelor students of the programs. There should be time and space for teachers to discuss their own research activity with students during the courses. Furthermore, the experts advise implementation of basic methods of research from the beginning (in the first semesters) of the bachelor program. Such an introductory course could be offered specific for each program or as a general requirement of the Faculty.

The degree may be extended by an interdisciplinary, general event in form of lectures or seminars, potentially covering various medical and non-medical topics and interlinking them. This may be used for conveyance of personal development and broadening background knowledge.

Moreover, the recommendation to introduce scientific and educational oriented master programs could have a positive influence on the future development of research activities of the college and the University as a whole.

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

IV. Summary:

In summary it can be stated that from the viewpoint of the experts the study program "Anesthesia Technology" fulfils the above described and evaluated criteria.

With regard to the accreditation of the study program, 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.

The "Anesthesia Technology" Bachelor program is a well-structured program, providing all knowledge needed. The focus lies on the practical skills, like clinical practice, internship, OSCE, skill labs etc. Currently, the program is offered only for male students. Here it could be a possibility for further development to open the program also for female students.

Extensions of the degree by interdisciplinary and soft-skills (e.g. team resource management and communication across health care professionals in various settings/conditions) is highly recommended. Combined practical drills may be used and organized across different degrees. Alternative methodologies may be applied, e.g. tutorials.

Research and its methodology needs to be addressed from an early stage and should end in the submission of a Bachelors-Thesis. This promotes the scientific work and critical thinking, but requires all staff to be actively involved in research.

The training qualifications need to be monitored permanently and held high in quality. Therefore development of teaching skills need to be freely accessible to members of staff and utilized whenever indicated. Furthermore, bearing in mind that graduates may pursue a career in teaching, subsequent postgraduate degrees should be installed mediating necessary skills, e.g. Master of Education.

Regarding the admission requirements to the Bachelor programs of the University, the experts strongly recommend to outline the standards and criteria for "physical fitness" and make them transparent, e.g. on the web page of the department.

In addition to the overarching aspects that were presented in the introduction to the assessment, the qualification objectives, the design and the structure of

the study program in particular had been the focus of the accreditation procedure. Aspects related to quality management, as well as the learning resources, facilities and staff have been discussed.

The University's strategy and its objective to increasingly enable citizens of the Kingdom of Saudi-Arabia to contribute to the development of their home-country are clearly described.

The University presents itself as a formative educational institution in the Kingdom of Saudi-Arabia and explains this also by the fact that it possesses significant unique characteristics and strengths, such as an inherent innovative capacity and a high value of its graduates on the national labor market.

Currently, the University has to deal with the situation of increasing numbers of enrolled students, which creates additional challenges for the institution in terms of spatial and material resources as well as teaching in terms of human resources.

Considering potential recommendations for future development, the experts underline that the University should and seems reluctant to work in two general directions: one is to encourage and enable further scientific engagement of the teaching staff, and the other is to offer continuing academic study opportunities for students. This can be achieved through the introduction of Master level programs. It should be kept in mind, that not every Bachelor program needs its own Master track. Instead, a relatively small number of dedicated Master programs could provide a broader range of study subjects with a focus on general competences necessary for implementation of scientific research in the form of research projects, experiments, and scientific papers, ideally with a specific relation to the given area of health science.

For the teaching staff hired in the foreseeable future, the above mentioned Master program(s) could offer an excellent chance to learn new methodologies of academic teaching, research and laboratory techniques in health sciences in order to prepare and further qualify and motivate prospective teachers for teaching of Bachelor students and with exceptional quality.

Moreover, the responsible persons of the University should think about introducing the possibility to offer specific study programs for employees that may lead to Master degrees, e.g. in the area of Health management and Health economics or other relevant areas.

For students, the Master programs should be seen as an opportunity to design, plan, accomplish and then present a complete body of scientific research in a specific area of medical sciences. The important point here is that the program offers the necessary tools and means whereas the student performs the main work independently and under supervision of one or more qualified instructors.

The implementation and management of the named study programs is, however, a relatively challenging task that requires full engagement by highly qualified specialists, who must be well trained not only in their area of medical health care, but also in pedagogical sciences, and scientific research activities. Hence, the experts believe that by offering one or two general Master programs for the field of Applied Medical Sciences the University could cultivate and grow its own team of junior teachers, who will then continue to teach Bachelor program students in the traditions of the institution.

Regarding the development of the research activities, the experts recommend teachers to encourage research already among Bachelor students of the programs. There should be time and space for teachers to discuss their own research activities with students during the courses. Furthermore, the experts advise implementation of basic research methods from the beginning (during the initial semesters) of the Bachelor program. Such an introductory course could be offered specifically for each program or as a general requirement by a cross-sectional course of the Faculty.

4 Decision of the accreditation commission

The resolution of the Accreditation Commission is based on the University's application, as well as the expert review and the on-site visit covered in the expert report. Moreover, the Accreditation Commission takes into account the response opinion regarding the study program. The on-site visit occurred on 2 and 3 November 2014 according to the previously agreed schedule.

The accreditation decision is based on the Accreditation Criteria developed by the AHPGS. 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).

The Accreditation Commission of the AHPGS has discussed the procedural documents, the vote of the expert group as well as the response opinion of the University.

The Bachelor study program "Anesthesia Technologies" is completed with awarding of the academic degree "Bachelor of Anesthesia Technology". The standard period of study is 8 semester plus one year internship.

The recommendation made under criterion 5 "Study process and student assessment", states that the University should outline the standards and criteria for "physical fitness" and make them transparent. The AHPGS Accreditation Commission refrains from applying this recommendation as a condition of accreditation and justifies its decision on the ground that the University has a set of admission requirements implemented on the institutional level; as a part of the higher education institution, the study program has to comply with and function within the legal framework of the University. Changing the admission procedure in the University as a whole depends on a University wide decision and affects national legislation. Therefore, the AHPGS Accreditation Commission proceeds in its decision to accredit the study program and, at the same time, it strongly encourages the Umm Al-Qura University to specify the criteria for "physical fitness" and make them transparent in the upcoming years.

The AHPGS Accreditation Commission considers that all Accreditation Criteria are fulfilled. The AHPGS Accreditation Commission accredits the study program "Anesthesia Technologies" for the duration of five years, until 30 September 2020.

For further development and enhancement of the study program and the University as a whole, the AHPGS Accreditation Commission recommends taking the study program specific recommendations as well as the overarching recommendations described in the summary of the Expert Report, into consideration.