

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 Applied Medical Sciences, Laboratory Medicine Department
for the accreditation of Bachelor study program
“Laboratory Medicine”**

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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 AOQ) to the AHPGS in electronic format.

The present document presents the summary of the AHPGS for the Bachelor study program "Laboratory Medicine". 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 "Laboratory Medicine", 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 "Laboratory Medicine":

Annex	Description
1	Course Description
2	Module Overview
3	Study Plan
4	Teaching Interdependence Matrix
5	CV Teaching Personnel
6	Labor Market Situation
7	Diploma Supplement
8	Internship Description (Field Experience Specification)

9	Example of Student Questionnaires
10	Standards for Quality Assurance and Accreditation of Higher Education Programs
11	College Description
12	Workload
13	Evaluation of Student by Clinical Laboratory
14	Summary of Internship Evaluation
15	Internship Monitoring Report
16	Evaluation of Student by Faculty Internship Committee

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 Applied Medical Sciences
Title of the study program	"Laboratory Medicine"
Degree awarded	Bachelor of Applied Medical Sciences (Laboratory Medicine)
Working language	English
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	5.960
Workload distribution	Total: 5.960 hours Total workload for University courses: 3.960 hours Practice: 2.000 hours
Beginning of the study program	September 2005
Time of admission	Summer semester
Number of available places on the program	300
Number of enrolled students in 2013	159 male and 137 female students
Number of graduates by 2013	165
Particular enrollment conditions	- A high school certificate or an equivalent - Specialized subject (Chemistry, Physics, Biology and English) with grading rate not less than 90% (Excellent) (For details see page 14 of the Summary).
Tuition fees	No fees

Table 1: Structural Data of Study Program

The study program “Laboratory Medicine” is structured according to three main requirements on the level of university, college, and specialization. The University requirement courses are spread throughout all eight semesters whereas the College requirement courses have to be accomplished during the 1st 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 “Laboratory Medicine” is to prepare specialists with in-depth knowledge of the relationships between laboratory data and pathologic processes. The graduates are expected to be able to

design, and conduct various quality control procedures and afterwards evaluate the received results. Students gain experience in implementing different methods of medical laboratory testing. Furthermore, they learn to work independently and perform critical thinking and problem solving skills in different diagnostic laboratory domains. Students of the program have to know the laboratory quality assurance requirements, safety rules, and regulations concerning information systems.

Considering the program specific competences, they include knowledge of the structure of human anatomy on both macroscopic and microscopic levels and the function of different systems, organs, tissues and cells; structure and functioning of the immune system of a human body and concepts of diagnostic immunology; diagnoses of blood related diseases; as well as concepts of microbial and parasitic diseases and their diagnosis. Besides, the program envisages teaching the basic concepts of pharmacology, toxicology, and genetics. It is stated that engagement in the laboratory work demands good technical competences for handling toxic chemicals and pathogenic substances (*for more information, see Application A2*).

The program in general foresees regular use of modern computer and communication technologies along with diverse statistic methods for data collection and analyses. The students of the program will have to apply these skills in a research project when they will choose one from an offered list of projects and accomplish it during the fourth year of studies. Hence, students improve their rhetoric and writing skills and also learn the academic standards of writing a scientific paper. The program also includes a one-year internship for the students to train at hospital laboratories before graduation.

The program "Laboratory Medicine" was designed and offered at the Umm Al-Qura University due to the increasing demand for public health services in Saudi Arabia. The fact that the city is annually visited by millions of pilgrims is claimed to generate a great need for specialists in the field of laboratory medicine. It is also worthy to mention that the Saudi Arabian Government is interested in education and support of local specialists of medical studies (*see Application A2.4*).

In its *Answers to Open Questions* (*see Question 8*) the University provides the following statistics of employment for the "Laboratory Medicine" program graduates:

Employed, %	Non-employed, %	Continue Studies, %
40%	30%	10% *
* No available data for the remaining 20%		

Table 2: Statistics of Employment for Program Graduates

The graduates of the program “Laboratory Medicine” can work in the laboratory units in different medical facilities, governmental or private healthcare centers, as well as military hospitals. Besides, they can be employed in medical research and development studies centers and also in private diagnostic laboratory units. Furthermore, educational establishments such as universities and health colleges are the envisioned places of work for the graduates of the program. According to the University, the Saudi Arabian Ministry of Civil Service annually announces the number of available positions for laboratory medicine graduates. Thus, in the official letter from the Ministry of Health dated 27 October 2013, it is indicated that there are 90 positions required according to the ministry standards and 131 currently available positions (*see Annex 6*).

At the moment, the College of Applied Medical Sciences does not offer post-graduate programs. In Question 5 of *Answers to Open Questions* it is claimed, however, that the graduates of the “Laboratory Medicine” Bachelor program can apply for university or governmental scholarships and post-graduate studies abroad. Moreover, the University offers Demonstrator positions for different specialties, including that of the “Laboratory Medicine” program, through which graduates can stay in touch with the academia.

2.2.3 Modularization of the study program and exam system

The study programs of the College of Applied Medical Sciences 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.

Semes.	Course Title	Attendance hours
1	Holy Quran	36
3		36

5		36
7		36 (total 144)
2	Islamic Culture	36
4		36
6		36
8		36 (total 144)
1	Arabic Language	36
3	The Biography of Prophet Mohammed	36
Total: 360		

Table 3: Overview of University Requirements

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.

Semes.	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 4: 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 or third semester of the program.

The first preparatory year is shared by all programs that were suggested by the College of Applied Medical Sciences for accreditation (Clinical Nutrition, Health Management, Laboratory Medicine, and Physiotherapy). It 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 "Laboratory Medicine" comprises 36 obligatory modules, out of which 10 are University requirements, 6 are College requirements and

20 are program specific courses. All modules have to be completed on a full-time basis within 8 semesters / 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 (*see Application A1.7, A1.12*).

The total workload of the program "Laboratory Medicine" equals 5.960 contact hours. The total amount of work-load is determined by calculating the net contact time spent during classes, laboratory hours and in a formal teaching environment. The individual study time of students is accounted into it.

The list of modules offered as specialization requirements:

Semes.	Course Title	Attendance Hours
3	Structural and Morphological Anatomy	90
	Laboratory Skills	15
4	Diagnostic Immunology	60
	Basic Nutrition	60
	Basic Microbiology	60
3/4	Basic Biochemistry	105
3/4	Basic Physiology	120
5/6	Diagnostic Histopathology and Cytology	180
	Applied Diagnostic Biochemistry	90
	Diagnostic Microbiology	120
	Diagnostic Hematology	105
	Diagnostic Parasitology	120
7	Blood Bank and Transfusion Medicine	60
	Molecular Genetics	60
	Basic Medical Biostatistics	45
	Applied Medical Sciences in Quran and Hadeeth (Sonna)	45
8	Public Health	15
	Laboratory Management and Quality Assurance	15
7/8	Diagnostic Pharmacology and Toxicology	60

7/8	Research Project of Laboratory Medicine	90
Total: 1.515		

Table 5: Overview of Specialization Requirements

The course description (*see Annex 1*) covers the following aspects: description of the module, its educational objectives, content, and the examination structure.

The study program “Laboratory Medicine” applies different strategies and methods of teaching, such as lectures, tutorials, small group discussions, practical sessions, case studies and assignments (*Application A1.16*). Learning platform of the program includes audio-visual displays, special teaching studio, data-show, and video tapes. Another important technique of teaching and learning in the program is the implementation of a research project in the fourth year of studies, when students have to conduct research, write a paper on the obtained results, and then present it. The main purpose of the *Research Project of Laboratory Medicine* course is to impart research skills to the beginners so they could undertake their own research project in the field of biomedical sciences and write thesis in accordance with standard research guidelines. Finally, a full year internship in one of the public general or specialized hospitals offers the soon-to-be graduates a whole range of learning situations. Under the management of an assigned supervisor they receive training in all the fields of nutrition services.

Concerning the question of internship placement, students of the program “Laboratory Medicine” are guaranteed guidance and support. The College of Applied Medical Sciences has a Vice Dean for Hospital Affairs who is responsible for the placement of all interns of the College at different internship sites. Besides this, the Department of Laboratory Medicine has a position of Internship Coordinator to look after the progress and issues of internship. The Coordinator is also assisted by the members of internship monitoring committee.

The students of the “Laboratory Medicine” Bachelor program are allocated to the appropriate place of training on the basis of the cooperation of the University with a hospital, location of the hospital in relation to a student’s accommodation, and a student’s academic ranking. It is also claimed that the students’ preferences are taken in consideration and an open-door orientation day

is offered to the students before the commencement of their internship (*see Question 7 of Answers to Open Questions*). The internship comprises involvement in ten directions, for instance, phlebotomy, microbiology, biochemistry parasitology and other. As for financial support during the internship, students of the College of Applied Medical Sciences receive a monthly stipend of 2.500 Saudi Reals (SR) which equals to approximately 482 Euro (*for more information, refer to Annex 7*).

The trainees' progress is planned, administered, and regulated, by field and college supervisors. The monitoring of the students is done at two levels: by a hospital laboratory training coordinator at an internship site and by a so-called internship monitoring committee of the Department of Laboratory Medicine. During his/her training at laboratory, a student is supervised on a daily basis by a laboratory supervisor. At the end of each rotation the student is evaluated by his/her immediate supervisor (*for the evaluation form, see Annex 13*). At the end of the internship period, a summary of internship evaluation (*see Annex 14*) for each student is drawn up by the laboratory training coordinator. The report is further submitted to the Vice Dean for Hospital Affairs of the College of Applied Medical Sciences.

Throughout the internship period, four quarterly visits are scheduled. Around 2 or 3 members of the internship monitoring committee visit each internship site and meet laboratory training coordinators and interns for their feedback. After each visit, their Internship Monitoring Report (*see Annex 15*) is submitted to the Internship Coordinator. If there are any issues, they are solved through the Vice Dean for Hospital Affairs. Each student is also evaluated by the internship committee using a prescribed form (*see Annex F*).

Quality assurance at the practice placement is ensured by the fact that both students as well as the teaching and supervising personnel have to fulfill the assessment questionnaires or/and write an assessment report on whether the educational objectives were accomplished and to what extent. Students' practical performance is evaluated in the end by the hospital and the university's internship committees (*see Application A1.18*).

The practical content of the study program is directly related to its intended objectives, for in each module practical sessions are arranged in accordance with theoretical classes. A research project in the fourth year of studies and a full year of practical engagement in a health care institution offer students a

full range of opportunities to apply their knowledge acquired at the University. Besides, these elements of the study program are claimed to help students fully realize the essence of their future profession (*see Application A1.18 and 1.19*).

Concerning the examination system of the program “Laboratory Medicine”, each module coordinator is responsible for structuring the examination system of their modules. Applied evaluation methods include written and practical exams as well as presentations, case studies, assignments, and group discussions. Examinations take place throughout a whole semester, with final exams at the end. 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 (*see Application A1.13*).

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.

Grading 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 6: 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 for they are expected to perform a lot of psychomotor and practical activities (*see Application 4.1*).

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 study program "Laboratory Medicine" has at its disposal 37 members of the teaching staff working on a full-time (about 80%) and part-time (about 20%) basis. As stated in Question 11 of *Answers to Open Questions* given by the University, among them there are 3 professors, 9 associated professors, 10 assistant professors, 7 lecturers, and 8 demonstrators. For further information on the teaching staff of the study program, please refer to Annexes 4 and 5. Aside from the teachers, there are also 12 employees of the technical and administrative staff (*see Application B2.1*).

The students are expected to complete their studies in the program "Laboratory Medicine" 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 300 places. According to the statistics provided by the University, there were all in all 296 students enrolled in the academic year 2012-2013, which accounts for the student-teacher ratio of 8:1, which means that there are 8 students per each full- or part-time basis 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. As forms of recognition and further professional stimulation, exceptionally successful and active members of the teaching personnel receive financial incentives as well as tokens of group honor.

2.3.2 Material and space resources

The study program "Laboratory Medicine" has its disposal 6 main halls of the University (3 for male and 3 for female students) both for lectures and seminars. Each hall contains 60 seats and is equipped with audiovisual screens, white board, and sound system. Furthermore, there are ten laboratories for teaching the practical sessions of different modules. The program is planning to use also the Central clinical/Research Laboratory (*see Application B3.1*).

There are two libraries that students of the program can use: one King Abdullah Bin Abdul-Aziz Library, which is intended for the use of all students, and the second, is the library of medical specialists. The total number of books (hard copy) in the libraries is 860,392 out of which 6000 are related to medical sciences. The King Abdullah Bin Abdul-Aziz Library is open from Saturday to Wednesday from 8.00 am till 2.30 pm.

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. (*see Application B3.2*).

Funds for teaching materials and student' research projects are provided by the University and from the budget of the College of Applied Medical Sciences. Each student's research project is funded from the budget of the college by 10.000 SR, which equals to approximately 1.938 Euro. King Abdul Aziz City for Science and Technology acts as an external sponsor (*see Application B3.4*).

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 F*). The quality assurance concept of the University relies on continuous performance monitoring and comparative evaluations 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*).

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. Regarding the question of transparency, evaluation results for a study module or course are available to the corresponding coordinators, whereas assessment results of the whole study program are submitted only to for the Head and Coordinator of the program.

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

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, supporting 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 all teaching and other 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 "Laboratory Medicine" 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 laboratories. 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*). Moreover, the University claims that graduate surveys are carried out that indicate coherence of graduates' current jobs with the contents of the study program and high level of job satisfaction. The program management is committed to updating the study courses in accordance with the needs of the labor market (*see Question 6 of Answers to Open Questions*).

Coherence and consistency of the study program "Laboratory Medicine" 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. The average time for independent study, completion of assignments and preparation for exams has been estimated by the teaching staff based on their previous experience in the given courses.

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 counseling is conducted with the help of booklets and through the information available on the College website, as

was already mentioned. According to the Application (A5.8), each member of the teaching personnel has regular office hours for student consultation. Furthermore, there are tutorials designed to offer practical application of learned skills. Finally, feedbacks on students' examination results as well as monitoring of their general progress are also claimed to function as means of motivation and support.

The University aims at improving the counseling process through electronic communication in the university website and through e-mails. Another project envisages creating personal portfolio for each student where he or she could gather data on university activities, academic achievements, and annual reports. Such a portfolio is expected to help a student determine his or her difficulties either in learning or social aspects of the university life (*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. The program "Laboratory Medicine" ensures that female and male teaching staff is hired on the basis of the same standards and qualifications, lecture and practical session material is delivered equally to female and male students, and generally all students receive similar learning materials and treatment at examinations as well as equal academic guidance and opportunities (*see Application A5.9*).

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 independent 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 Scienc-

es, 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. In 2005, the Department of Medical Sciences was separat-

ed from the College of Medicine and was changed into the “College of Applied Medical Sciences” encompassing the following nine academic specialties:

1. Laboratory Medicine Program;
2. Clinical Nutrition Program;
3. Physiotherapy and Rehabilitation Program;
4. Nursing Program;
5. Health Management Program;
6. Diagnostic Imaging Program;
7. Environmental Health Program;
8. Clinical Techniques Program; and
9. Dentistry and Oral Hygiene Program.

There are approximately 1.743 students (889 male and 854 female students) enrolled in the College of Applied Medical Sciences at the moment and this number is expected to increase. Therefore, it is planned to build the University Medical Centre to meet the requirements of the programs of medical sphere. The objectives of the College are to achieve national and international accreditation, to employ the university resources adequately, and to prepare qualified specialists. Besides, the College sees the establishment of collaborations with other medical science colleges and participation in international conferences as essential conditions for its successful development (see Annex 11).

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 AHPGS¹. 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.

¹http://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 Bals²

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

² 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 “Laboratory Medicine” offered by the College of Applied Medical Sciences is a 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 Applied Medical Sciences (Laboratory Medicine) degree. The study program comprises 36 mandatory modules and is taught mainly in English. The program does not require a final written thesis; however, during their last year of studies students have to accomplish a research project individually. In the fifth year, students are expected to complete an obligatory one-year internship. The “Laboratory Medicine” Bachelor study program was first launched in September 2005. In order to be admitted to the program, applicants are required to hold a high school certificate or equivalent and have a grade no lower than 90% (Excellent) in certain specified subjects (i.e. Chemistry, Physics, Biology and English). Apart from their grades, applicants have to pass an admission test and an interview; and they have to be physically “fit”. No tuition fees are applicable to the study program.

The “Laboratory Medicine” (Bachelor of Laboratory Medicine) study program aims at preparing specialists with in-depth knowledge about the relationship between laboratory medical data and pathologic processes in patients. The graduates are expected to be able to design and conduct various quality control procedures, and to continuously evaluate and quality-check the received laboratory data results. For this, students gain experience by implementing different methods of medical laboratory testing. Furthermore, they learn to work independently and to develop and use critical thinking and problem solving skills in different diagnostic laboratory domains. Students of the program have to know the laboratory quality assurance requirements, safety rules, and regulations concerning patient data information systems. In general, graduates of the program can work in laboratory units at different medical facilities, government or private healthcare centers, and military hospitals. Besides, they can be employed at medical research and development study centers as well as private diagnostic laboratory units.

Overall, it can be stated, that the program is based on professional qualification goals. These include also disciplinary aspects, e.g. in study program specific modules like “Laboratory Management and Quality Assurance” or “Diagnostic Parasitology”. Also interdisciplinary aspects are included, such as “Public Health” or “Basic Microbiology”. Related to the area of academic ability building, the research project in the 8th semester has to be highlighted. Regarding skills needed for job employment, the role of the internship has to be mentioned, which is supported by the University. Regarding the ability of social community commitment and personal development of related skills, the first preparatory year has to be mentioned. Here, all students have to engage with religious subjects as well as general subjects needed for effective communication 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. Furthermore, the general mission of the program complies with its specific goals as well as requirements to graduates. The program’s priorities are clearly and appropriately defined; they are influential for planning and implementation of the program. Concerning its content and modular design, the course of studies is designed in a comprehensible and adequate manner. The modules bear proof of a content coherence and cover most if not all areas of modern medical laboratory applications. During the studies, students are taught specialized, interdisciplinary, methodical and scientific competences. The final internship under the supervision of experienced staff members allows for further building and refinement of important practical skills.

In general, the experts have concluded that the study program complies with the overall mission of the University: first, to satisfy the increasing demand for qualified medical staff and in a relevant area of 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 and for specific regional community needs.

Considering recommendation for future development, the experts underline that the University should and seems also reluctant to work in two general directions: one is to encourage and enable further scientific engagement op-

tions for 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 existing Bachelor program will need its own Master program. Rather, a relatively small number of Master programs can be developed to accommodate a relatively broad range of study subjects that focus on generally important competences, in particular those necessary for implementation of scientific research in the form of succinct research projects, experiments, and to gain scientific paper output, and ideally specific for the given area of health science.

For teaching staff hired in the foreseeable future, the above mentioned Master program(s) will answer to the need to learn new methodologies of academic teaching and research techniques in health sciences in order to prepare and enrich the teaching curriculum of Bachelor students.

Moreover, the responsible persons of the University may want to consider the possibility to offer specific study programs for employees that lead to Master degrees, e.g. in the area of Health Management and Health Economics or other relevant and/or urgently needed areas.

For students, Master program should include opportunities to conceptualize, plan, accomplish and present a completed scientific research project in a specific area of medical sciences. An important prerequisite for this is that the program offers the necessary tools and means for research projects ("the environment") that students can engage and perform the main part or several students several independent parts of the research project and related work independently, yet under sufficient supervision and continuous constructive advice of experienced research staff.

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

(2) Curriculum Design

The study programs of the College of Applied Medical Sciences 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 "Laboratory Medicine" comprises 36 obligatory modules, out of which 10 are University requirements, 6 are College requirements and 20 are program specific courses. All modules have to be completed on a full-time basis within 8 semesters / 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 that were suggested by the College of Applied Medical Sciences for accreditation (Clinical Nutrition, Health Management, Laboratory Medicine, and Physiotherapy). It 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 "Laboratory Medicine" 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 curriculum 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 comes to the conclusion that there is a strong corporate identity and positive group dynamics among the university and faculty administrations.

The study program "Laboratory Medicine" has at its disposal 37 members of the teaching staff working on a full-time (about 80%) and part-time (about 20%) basis. Among them, there are 3 professors, 9 associated professors, 10 assistant professors, 7 lecturers, and 8 demonstrators. Aside from the teachers, there are also 12 employees of the technical and administrative staff.

The full enrollment capacity of the program is 300 places. According to the statistics provided by the University, there were all in all 296 students enrolled in the academic year 2012-2013, which accounts for the student-teacher ratio of 8:1. This means that there are eight students per each full- or part-time 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.

New teaching staff is thoroughly briefed about the program and their teaching responsibilities before they can start working.

Students evaluate performance of all teaching and other staff periodically.

To conclude, the teaching staff is appropriately qualified and experienced for their particular teaching responsibilities. Teaching strategies are used in accordance with intended learning outcomes. Furthermore, teachers are encouraged to participate in activities on the improvement of their teaching methods and techniques.

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 continue 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 "Laboratory Medicine" has its disposal 6 main halls of the University (3 for male and 3 for female students) both for lectures and seminars. Each hall contains 60 seats and is equipped with audiovisual screens, white board, and a sound system. Furthermore, there are ten laboratories for teaching the practical sessions of different modules. The program is planning to use also the Central clinical/Research Laboratory for its needs.

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 "Emergency medical Services" program. All facilities meet health and safety requirements.

Adequate facilities are provided for confidential consultations between teaching staff and students.

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 Applied Medical Sciences.

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 "Laboratory Medicine" is offered for both female and male students. It is assured that all students are provided with equal learning facilities and they all receive similar academic guidance and opportunities. d) The study program "Physiotherapy" is offered for male students only. It is planned to establish a female section, though first it has to be equipped on the similar qualitative and quantitative level as the male section, particularly teaching staff.

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 program.

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 important 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 are 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 “Laboratory Medicine” to professional practice is provided by the fact that the courses are annually evaluated by teachers and students through surveys, interviews, and reports in terms of their effectiveness and correspondence of their initial educational objectives to the actual experience. 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 rely on assessment reports by professional supervisors in hospital laboratories. Moreover, the University claims that graduate surveys indicate coherence between graduates’ current jobs with the content of the study program as well as the high level of job satisfaction. The program management is committed to updating the study courses in accordance with the needs of the labor market.

Coherence and consistency of the study program “Laboratory Medicine” 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. The average time for independent study, completion of assignments and preparation for exams has been estimated by the teaching staff based on their previous experience in respective courses.

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 respective field and that these developments are reflected in their teaching.

Adequate facilities and equipment are available to support the research activities of the teaching staff and postgraduate students 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 activities with students during or outside 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.

Moreover, the recommendation to introduce scientific and educational oriented Master programs could have a positive influence on the future development of research activities and recruitment of qualified staff.

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

IV. Summary:

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

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 Bachelor program "Laboratory Medicine" is evaluated to be a rational study program aimed at preparing specialists with in-depth knowledge of the relationships between clinical laboratory data and pathologic processes in patients. Its curriculum design provides a generally good impression. Concerning the content and modular design, the course of studies is comprehensible, adequate and understandable. The modules refer to each other sufficiently and cover most if not all relevant areas in the medical laboratory field. An adequate internship in a relevant field for students is also guaranteed by qualified staff members.

During the studies specialized, interdisciplinary, methodical and scientific competences are taught. On the whole, this appears like a good plan to provide the necessary skills to enable individual graduates for their later professional life.

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 "Laboratory Medicine" is completed with awarding of the academic degree "Bachelor of Applied Medical Sciences (Laboratory Medicine)". 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 pro-

gram "Laboratory Medicine" 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.