

1 Expert Report

Please note that this expert report will be included into the final Assessment Report following the decision of the Accreditation Commission. Upon the expiry of the time period for objections, the final Assessment Report will be forwarded to the University. The Assessment Report consists of the introduction to the accreditation procedure, the summary of current state of the study program before the on-site assessment, the given expert report and the decision of the Accreditation Commission of the AHPGS.

1.1 Preliminary remarks

The study programs of Umm Al-Qura University, Mecca, Kingdom of Saudi Arabia, are required to be accredited by an international accreditation agency based on the study program of the University. The accreditation criteria of the Accreditation Agency in Health and Social Science (AHPGS) are the formal basis for the accreditation decision. These criteria are documented and regularly updated on the AHPGS¹ website. Any accreditation criteria applied by the AHPGS are in accordance with criteria and requirements previously established throughout the Federal Republic of Germany, which are based on the "Standards and Guidelines for Quality Assurance in the European Higher Education Area" (ESG) as established by the European Association for Quality Assurance in Higher Education (ENQA).

Seven major criteria exist, which are structured as follows:

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

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

¹http://ahpgs.de/wp-content/uploads/2011/10/Criteria_AHPGS_englisch.pdf

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

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

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

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

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

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

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

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

As representatives of academic and health care institutions:

Prof. Dr. Wolfgang Arnold

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

Dr. Rolf Heusser

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

Prof. Dr. Ulrike Holzgrabe

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

Dr. Adrian Kasaj²

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

Prof. Dr. Stephan Lehnart

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

² The experts shown in italics have participated in the on-site visit of the University. All experts mentioned in the expert report accomplished the written evaluation of one of the study programs based on the documents submitted by the University.

Prof. Dr. med. Gerd Mikus

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

Prof. Dr. Gerhard Karl Eduard Scriba

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

Univ.-Prof. Dr. Dr. Ralf Smeets

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

Dr. Ulrich Stößel

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

As a student representative:

Martha Hofmann

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

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

Any open questions regarding the application documents were forwarded to the University on 11 December 2015. After the University representatives submitted their responses to these open questions by 8 January 2016, the AHPGS incorporated the answers by summary into each study program record. On 30 March 2016, the AHPGS forwarded the Self-Evaluation Reports, their annexes and the summaries of the study programs to the members of the expert group assigned for the on-site visit.

1.2 Basic information about the study program

The main objective of the bachelor study program “Bachelor of Pharmacy” (B Pharm) offered at the College of Pharmacy is to prepare competent pharmacists with extensive pharmaceutical knowledge. The University aims at providing students with pharmacy-specific skills and also with knowledge in legal and ethical aspects, as well as in statistics, toxicology and industrial pharmacy, which are related to their future profession.

“Bachelor of Pharmacy” is a full-time study program with the regular duration of five years/ten semesters. To be more exact, the structure of the program consists of the preparatory (first) year and four years of the main study period, thus five years in total. The program curriculum consists of 69 courses, ten of which are taught in the preparatory year and 59 during the main period of studies.

The study program requires the obtainment of 180 credit hours according to the credit system applied at institutions of higher education in Saudi Arabia. One credit hour is calculated based on the number of theoretical (lecture) and practical (laboratory) hours per week; to be more exact, one credit hour is equal to one lecture hour and two laboratory hours. The total workload of the program constitutes 7,007 hours in total, of which 2,422 are contact hours, 4,585 are self-study hours. The practical activity hours of the two summer trainings after the third and the fourth year (320 hours for each summer training period) are not included into the total amount of credits.

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

the total amount of credit hours for all courses they have attended for the whole education period in the program.

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

There are two admission procedures in the study program: 1) admission to the preparatory year, and 2) admission to the study program itself. Both take place once a year, before the beginning of winter semester. The admission requirements to the preparatory year at the University include the Saudi-Arabian nationality of the candidates or of their mother, a high school certificate or an equivalent with 90% of general performance as well as 90% of performance in the following subjects: chemistry, physics, biology and the English language. Besides, applicants have to pass the General Aptitude Test (GAT) and the Educational Achievement Test required for medical colleges. In addition to that, they have to be physically and medically fit.

Upon the completion of the preparatory year, students are admitted to a study program depending on their choice and their ranking. Students are ranked based on their performance in the preparatory year (60%) and their cumulative grade in the secondary school certificate (40%). The admission to the study program depends also on the number of available places at the college.

The College of Pharmacy offers two study programs: "Bachelor of Pharmacy" (the so-called B Pharm level) and "Doctor of Pharmacy" (the so-called Pharm D level). Pharm D is considered to be a more advanced level of studies in pharmacy than B Pharm level. Both programs have the same curriculum and structure in the first three years. After the completion of the third year, students are classified into two study programs based on their choice and their GPA results; students should have high GPA results in order to be admitted to the Pharm D level program. The University indicates that both programs are completed with a bachelor's degree.

The admission capacity of the College of Pharmacy constitutes 50 places for female and 50 places for male students annually. In the academic year 2014/2015, there were 77 female and 82 male students admitted to the second year of studies to the College of Pharmacy after the completion of the preparatory year (students of the college are considered all together, since the

division into two programs takes place later, after the third year). In the same academic year, there were 32 female and 38 male students assigned to the program "Bachelor of Pharmacy" after having finished the third year of studies. The number of places in each study program is not strictly determined; the experts deduced that 70 to 80% of all third year students of the College of Pharmacy are assigned to the program "Bachelor of Pharmacy". Starting from the academic year 2015-2016, 50% of students are assigned in each program.

There is no internship period in the study program "Bachelor of Pharmacy". Upon the completion of the fifth year of studies, students receive the academic title "Bachelor of Pharmacy". Graduates of the program are directly registered at the Saudi Arabian Commission for Health Specialties (SCHS). This means that they can directly start working as pharmacists.

1.3 Expert Report

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

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

During the on-site visit, the experts had transparent, productive and in-depth discussions with the representatives of the University management, college representatives, program directors and teachers, as well as with a group of female and male students currently enrolled in the study programs under evaluation. Furthermore, the experts visited the study facilities and equipment in teaching laboratories, lecture and seminar halls as well as the library and general study areas. They visited both the male and female sections of the University campus and discussed a comprehensive spectrum of education-related issues both with male and female representatives of the University.

The expert report was structured in compliance with the accreditation criteria approved by the AHPGS. The study program "Bachelor of Pharmacy" will be analyzed in a comprehensive manner below. The documents of the University,

the experts' written reviews of the application documents, the observations made during the on-site visit and the results of the discussions with the University representatives and students serve as the basis for the statements given by the expert report.

1.3.0 Introduction and comprehensive remarks

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

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

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

In Saudi Arabia, the education program is further organized to encompass gender segregation. Consequently, the campus of Umm Al-Qura University consists each of male and a female study sections for teaching. At the on-site visit of the University, the expert group assigned by the AHPGS had the opportunity to discuss the program-related issues with both male and female representatives of the University. Moreover, they visited the study premises of both gender sections at the colleges. During the on-site visit, the experts witnessed constant activities and mutually beneficial exchanges between the male and female sections of the University. Apparently, the University strives

to provide both gender groups with similar learning and examination conditions, admission chances, material resources and other opportunities for education and development.

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

1.3.1 Aims and Implementation

The study program “Bachelor of Pharmacy” aims at educating pharmacists committed to work with patients and willing to serve the health-care needs of the local community. By the end of their studies, students of the program are expected to know the main sources of drugs, their physio-chemical properties, therapeutic effects and methods of their application and delivery. Furthermore, graduates of the program must know the legal and professional requirements for supplying medical products and services, and be well familiar with the systems of quality assurance of pharmaceutical products and services. They must be acquainted with methods of research as well as methods of dealing with scientific questions and practice-related problems. In addition to that, they possess knowledge in drug production and quality control. The program aims also at introducing recent developments in pharmacy law and practice to students.

The learning outcomes of the program are well defined and are developed in accordance with the overall strategy of the University. The experts concluded that the study program “Bachelor of Pharmacy” complies with the national requirements regarding the structure and content of higher education programs in pharmacy. Besides, the experts observed that the learning objectives of the study program are in congruence with the ones pursued in similar programs in the English speaking countries like the UK, the USA and Australia. They have also confirmed that the objectives of the program correspond to the academic level of bachelor’s degree. The program enables the graduates to start working directly after the completion of their studies; they do not need to pass the national licensing examination for that.

As a result of the assessment procedure, the experts came however to the conclusion that the curricula and the learning outcomes of both study programs offered at the College of Pharmacy are very similar, even almost identical except for a small number of courses. One of the most essential differences between the study programs “Bachelor of Pharmacy” and “Doctor of Pharmacy” is the one-year clinical training.

From the experts’ point of view, strong similarities between the two study programs and lack of differentiating information about them can lead to considerable confusions. To be more exact, the students of the college can have difficulties when confronted with the question, what of the two study program they should choose. In addition to that, it might be difficult for the potential employers to distinguish, what competences exactly the graduates of the college can offer. Finally, ambiguities and lack of focus on their individual features can make the understanding and the assessment of the study programs by external experts significantly complicated and time-consuming. Thus in the UK, as a result of integration into the EU, B Pharm studies (three years, Bachelor of Pharmacy) were superseded by M Pharm study programs (four years, Master of Pharmacy).

Taking these facts into account, the experts strongly recommend the College of Pharmacy to present the unique features of each study program in a distinctive and transparent manner. Thereby, the University should particularly pay attention to the precise definition of the learning outcomes, the professional objectives and the structure of the courses, as well as the admission requirements, of each study program. The exact description of the programs should be published on the website of the University and thus be available to everyone interested.

With regard to the presentation of the program content and results, the experts advocate the idea of offering the program graduates an additional official document describing the competencies obtained by the end of the studies together with their graduation diplomas. Higher education institutions of the European countries participating in the Bologna Process are required to issue such a document titled “Diploma Supplement”, which is an attachment to a higher education diploma. The Diploma Supplement provides information about the nature, level, context, content and status of the studies completed by an individual student. The experts believe that the introduction of a similar document will contribute to fostering student exchange between Umm Al-

Qura University and other national and international universities. Furthermore, it will enable foreign universities to better classify Saudi Arabian diplomas within their own system of higher education degrees, which is an important aspect for students planning to pursue further studies abroad. Finally, such a document will facilitate the better and faster understanding of the program content and learning outcomes by prospective employers.

According to the University, graduates of the College of Pharmacy” do not need to pass a licensing examination to start working as pharmacists. Upon finishing the studies, they are automatically registered at the Saudi Arabian Commission for Health Specialties (SCHS).

Regarding the employment opportunities, the program enables its graduates to work at public and private hospitals and primary health care centers, dispensaries and polyclinics. Besides, they can be employed at drug- and food-related administrative organizations, at the institutions of drug production and registration or in research and development laboratories as medical sale representatives, as well as in pharmaceutical plants as quality control examiners. Graduates can also further pursue their studies at higher education institutions in the position of demonstrators, research assistants and teaching assistants.

The University informs that there is a high demand for pharmaceutical services in the country due to the increasing number and diversity of medical substances available in the Saudi Arabian market. Furthermore, the number of citizens is continuously growing in Saudi Arabia and so does the demand for professionals in the sphere of health care and medication provision. The pharmaceutical industry of the country is actively developing at the moment, which creates a considerable demand for specialists in pharmacy to work in such domains as research quality control, production and marketing.

That is why the experts were considerably surprised and bewildered at the on-site visit by the report of the University, according to which the average of (only) 25% of all University graduates found employment within the next three months following the completion of their studies at the University. The experts were hereby confronted with the question how to interpret this number taking into account the development of the Saudi Arabian labor market and the current employment capacities of the country. Independent of the answer to this question, the experts concluded that the University should increasingly support its students during the transition period from the academ-

ic to professional sphere, so that a larger number of graduates will be employed. For that, the University should establish a Career Center and encourage individual colleges and departments to organize more events and consultation opportunities, where students can meet the representatives of various professions and learn about the needs and expectations of the prospective employers.

The students of the program "Bachelor of Pharmacy" acquire and apply methods of research in the fifth year of the program in the mandatory course "Research Project". They choose a research topic from a list of suggested titles. In this course, students learn to use available resources for literature review, to outline research methodologies, to identify and analyze a scientific question, to work in a team, and to write and edit a scientific paper. At the end of the course, students have to present their paper in front of an examination committee. The experts underline that particularly outstanding research projects should be further promoted by the University. With the help of the institutional support students can then participate and present their achievements in different meeting and conferences.

Based on the application documents and the observations during the on-site visit, the experts concluded that internationalization is embedded in the program mainly through the learning material in the English language. Indeed, English as the language of instruction in the program enables broader access to international scientific material for teachers and students. The experts have also positively noted that the College of Pharmacy is planning to organize experience exchange with a university from the USA.

At the same time however, the experts observed the lack of direct cooperation and experience exchange between the University and other national as well as international higher education institutions and organizations. This fact was extensively commented and discussed by the experts in the written assessments and during the on-site visit. The experts emphasize that mobility of students and teachers, as well as the development and implementation of international exchange, constitute an indispensable part of modern education.

Within these lines, the experts refer to one of the objectives of the program, which foresees the equipment of students with special skills for the development of new drugs and pharmaceutical products of international quality. For the successful attainment of this objective the College of Pharmacy should

offer international perspectives and exchange opportunities in the study program. Therefore, the experts encourage the college to invite scientists and professionals from abroad to teach at the programs, and also to launch experience exchange programs for the teaching staff and students of the college.

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

The experts concluded that the requirements of the criterion are in general met.

1.3.2 Structure of the study program

The study program "Bachelor of Pharmacy" consists of 69 courses in total, ten of which are taught in the preparatory year and 59 are taught from the second to the sixth year of studies. Of these 59 courses, 11 are university and college requirement courses, eight are courses provided by other study programs, and 40 are program-specific courses. The regular study period in the program constitutes five years/ten semesters.

From the experts' point of view, the study program "Bachelor of Pharmacy" has a well-structured curriculum, where basic subjects are offered at the beginning, whereas the pharmacy-specific courses during the main period of studies (from the second until the fifth year) in accordance with the increasing degree of complexity of the learning material. The experts positively noted the fact that the program includes program-specific elective courses, e.g. in industrial pharmacy, drug delivery, marketing and other.

At present, the programs B Pharm and Pharm D are very similar except for the sixth year of clinical training which only applies to the Pharm D program. Differences exist also in the fourth and fifth years of study, but quite often they refer only to the semester when the course is actually offered. For example, the courses "Therapeutics 1" and "Therapeutics 2" are taught at the Pharm D level in the fourth year, while at the B Pharm level in the fifth year. Other

similar examples include the courses “Pharmacy Law and Ethics”, “First Aid” and “Statistics”. The experts agreed that the coursework of the initial three years (preparatory year plus two years of pharmaceutical studies) should be identical and specialization should start in the fourth year. However, the differences between the programs should be more distinct and also reflected in the career track opportunities for the graduates of both programs. At present, the only difference that derives from the description provided by the University is the fact that B Pharm graduates can work in the pharmaceutical industry in quality control, whereas Pharm D graduates receive intensive training in pharmaceutical services and functions required particularly in health care institutions. At the same time, it is not clear why subjects such as “Community Pharmacy” or “Self-Care and Non-Prescription” are not taught for B Pharm students considering the fact that many of them will work in public pharmacies (i.e. community pharmacies). Overall, the College of Pharmacy should more distinctly differentiate between both programs in a more conceptual way.

After having studied the description of the courses, the experts came to the conclusion that the conceptual connection between the courses might need some improvement. For instance, under the prerequisites of the course “Medicinal Chemistry III” the college indicates the successful completion of all fourth-year courses, although there is no direct conceptual connection of the given course to, for example, pharmacognosy, dispensing medicine or principles of drug information. In addition, this contradicts the information given in the examination system that students can repeat single failed courses in the following year. Similar statements can be found in other course descriptions.

Consequently, the experts strongly encourage the teaching staff of the program to review the course descriptions and give more precise details regarding their content, requirements and learning outcomes. At the same time, it is recommended to limit the description for each course to two pages deleting general statements. The experts are confident that this will help to make the program curriculum less fragmented and more interconnected and consecutive.

During the assessment procedure, the experts discussed whether the program offers sufficient courses dedicated to the fundamentals in chemistry. From the experts’ point of view, solid knowledge of drugs’ chemistry is of utmost importance for the understanding of their effects, pharmacokinetics and metabo-

lism. Besides, the program management should consider including more courses dedicated to the studies of advanced drugs, e.g. the role of antibodies, vaccines, etc. as well as of molecular biology. At the same time, the experts believe that pharmacognosy is perhaps overrepresented in the program curriculum. During the on-site visit discussion, the representatives of the College of Pharmacy explained the structure of the program curriculum in detail. As a result, the experts found the content of the program to be overall comprehensible and coherent.

With regard to the practical part of the program, the experts pointed out that the College of Pharmacy might consider offering more practical hours in the courses dedicated to chemistry. During the on-site visit, the experts discussed with the representatives of the college, whether it is the lacking number of laboratories that might possibly prevent them from organizing more practical sessions in chemistry. As a result of the visit of the college premises, the experts were convinced that the University provides sufficient number of laboratories necessary for the implementation of the program.

When reviewing the program-related documents of the University, the experts were confronted with the difficulty that the descriptions of the courses did not always provide the exact and discipline-specific information. They pointed out that working with incomplete and partially redundant material makes the procedure of assessment more complicated and time-consuming. The experts also emphasized that the information and the facts related to the structure (e.g. workload, study plan, credits) and the content (course descriptions, learning outcomes) of the study program should be communicated within and particularly outside of the University as precise as possible. This is crucial for the transparent and comprehensive presentation of the program.

Based on these observations, the experts strongly recommend the College of Pharmacy to review the descriptions of the program courses in terms of precision, completeness and concision. For the sake of readability, the course descriptions should be shortened; the general information, which is included in all descriptions, should be mentioned only once in terms of overarching details and deleted in the individual descriptions. The course descriptions should be updated. For example, if midterm exams are no longer required, this information should be deleted or adjusted accordingly.

The experts discussed the fact that the structure of the program consists of numerous different courses and is, therefore, quite fragmented. They concluded that this leads to a high examination load for students at the end of each semester because every course finishes with a final examination. The discussion with the program students revealed that, on the one hand indeed, they experience the resulting workload as quite intensive and high. On the other hand, the program students underlined that the continuous engagement in examinations assures a successful learning process. Based on the European perspective, the experts recommend the University to consider the combination of the program courses into larger units, e.g. modules. The experts highlight the expediency of using modules, since they cover a bigger amount of learning material and are completed with one final examination (more information about the modularized structure can be found in the document "ECTS Users' Guide"³).

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

The study program "Bachelor of Pharmacy" does not require the submission of a bachelor thesis for awarding the academic degree. But from the experts' point of view, students' activities accomplished in the course "Research Project" is comparable with the European understanding of such a graduation research paper. In this regard, the experts confirm that the program develops

³ See the link: http://ec.europa.eu/education/library/publications/2015/ects-users-guide_en.pdf (11.05.2016)

a solid understanding and methods of dealing with discipline-specific research questions.

Students of the program “Bachelor of Pharmacy” are required to complete two summer trainings: one after the third year and another one after the fourth year of studies. Each summer training lasts for eight weeks/two months and comprises 320 working hours. No clinical internship is foreseen in the program. The aim of the first summer training is to familiarize students with fundamentals of pharmacy practice in outpatient and community care settings. The aim of the second summer training is to familiarize students with the fundamentals of pharmacy practice in the institutional (hospital) settings.

The experts very positively evaluated the summer training manuals of the College of Pharmacy, which give a detailed description of the placement process, attendance regulations, students’ and supervisors’ responsibilities and other aspects of the given period. Regarding though the hours of laboratory work and practical sessions in the courses, the experts believe that their number should be increased. Students should be offered sufficient number of laboratory sessions in order to practice in all important areas of pharmaceutical studies, meaning chemistry, physics, pharmacognosy, pharmaceutics etc.

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

1.3.3 Admission and Feasibility

The admission procedure of the College of Pharmacy complies with the regulations of the University and with the two-step admission system implemented in other Saudi Arabian higher education institutions. First, students are admitted to the preparatory year, which is managed by the University Deanship of Admission and Registration. After the successful completion of the preparatory year, students can apply to one of the following colleges: Dentistry, Medicine, Pharmacy, Applied Medical Sciences, Public Health and Health Informatics, and Nursing. Admission to a college means that students continue their studies in the second year.

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

The admission requirements enable the University to choose students with the sufficient level of knowledge in subjects related to the sphere of pharmacy,

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

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

Students of both programs of the College of Pharmacy study together until the third year of studies. After the third year, they are assigned into one of the two programs - "Bachelor of Pharmacy" or "Doctor of Pharmacy" - based on their choice and their GPA results. Students with high performance results have more opportunities to be admitted to the program "Doctor of Pharmacy".

The University has a set of regulations for internal and external transfer procedures. Students transferring from other higher education institutions forward their request to the University's Deanship of Admission and Registration, and if they fulfill the requirements, their request is then submitted to the respective college. Courses completed at the previous university will be equated and registered in students' academic record, though credits for these courses will not be counted into their cumulative grade.

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

1.3.4 Examination System and Transparency

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

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

The experts evaluate the assessment regulations and procedures of the University as adequate. The expediency of the examination procedures of the University serves as an effective tool to determine students' learning success as well as the feasibility of the learning material.

The large amount of courses in the program curriculum leads to a large number of examinations at the end of each semester. Taking into account that each course comprises mid-term and final examinations and that one semester consists usually of six to seven courses, the examination load of the program appears to be very high. The College of Pharmacy clarified that in the current academic year there were no mid-term examinations carried out in the pro-

gram, but only continuous assessments and final examinations. Nevertheless, the experts recommend the academic staff of the college to arrange the learning content in larger units, namely in modules that are completed with one examination at the end of the semester.

With regard to the methods of assessment applied in the program courses, the experts point out that some disciplines should include more oral examinations because students have to demonstrate the skills of communication with patients and medical personnel. This particularly concerns courses such as "Therapeutics I and Patient Assessment" and "Hospital Pharmacy". Besides, the experts observed that multiple choice questions seem to be applied too often in some courses. They underline that such a form of assessment is not always appropriate to evaluate students' competences in scientific questions and practice-related skills. During the on-site visit, the teaching personnel mentioned that interactive exams are increasingly used in some of the program courses. The experts welcomed this development and recommended the teaching staff of the College of Pharmacy to further review the assessment methods applied in the program in accordance with the learning outcomes pursued in every individual course.

Information about the study program "Bachelor of Pharmacy", including its mission and objectives, admission requirements, Student Guide, study plan, list of competencies, curriculum and summer training is available on the website of the College of Pharmacy. Students are informed about the objectives, regulations, requirements, attendance sheets, assessment methods and other details of the program courses through the college website, the training guide as well as in the University library.

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

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

1.3.5 Teaching staff and Material Equipment

The academic staff of the College of Pharmacy is teaching in both study programs "Bachelor of Pharmacy" and "Doctor of Pharmacy". It consists of 22 female and 32 male full-time members. Among the male teaching staff, there

is one professor, seven associate professors, 13 assistant professors and 11 lecturers. Among the female teaching staff, there are three professors, four associate professors, 11 assistant professors and four lecturers. Moreover, there are ten female and 11 male part-time teachers working in the program. The student-teacher ratio constitutes approximately 11 to 12 female and seven male students per one full-time teacher.

The University implements a regulated procedure of employment on academic and non-academic positions for Saudi-Arabian and non-Saudi-Arabian candidates. These regulations are designed and administered by the Saudi Arabian Ministry of Education. The University announces vacant positions on its website, as well as in local newspapers and through various media sources. The experts consider these employment standards of the University to be adequate.

The experts were impressed by the qualifications of the teaching staff. The academic staff of the College of Pharmacy shows great dedication to the successful realization of the study program. Its members take part in workshops and seminars organized by the Staff Development Unit of the college and by the Deanship of Development and Quality of the University. These workshops are dedicated, for instance, to the questions of writing a self-evaluation report for a program or a course, and to the application of e-learning methods in class. The experts evaluate such events as expedient and effective for the continuous development of the college academic staff. At the same time though, they recommend to strengthen the involvement of the teaching staff in international academic exchange activities and scientific events.

During the on-site visit, the experts visited the classrooms, lecture halls and training premises of the College of Pharmacy. The female section of the College of Pharmacy has six lecture rooms, eight laboratories, one seminar room and one research laboratory. The male section of the college contains three lecture rooms, eight laboratories, one seminar room and one research laboratory. Lecture rooms have the capacity of 70 seats in the male section and of 50 seats in the female section. Laboratories have the capacity of 20-25 working places. Research laboratories can accommodate 10-15 students and are equipped with stations for drug pre-formulation analyses as well as for production and quality control.

As a result of the on-site visit, the experts conclude that the equipment of the laboratories is adequate and sufficient for the implementation of the bachelor study program. Nevertheless, it should be pointed out that further increase in the number of students will consequently cause the growing demand for space and other additional material resources. The experts underline that HPLC instruments are important for the assessment and analyses of drug quality, and that they should be provided in the college laboratories in a sufficient and accessible manner for all students. The experts encourage, therefore, the College of Pharmacy to monitor the current needs of students regarding the laboratory equipment and space based on quality assurance measures.

Students of the program have access to the central library of the University named "King Abdullah Bin Abdul-Aziz Library". The opening hours of the central Library are from 8:00 till 20:00 for the male section and from 8:00 till 16:00 for the female section of the library. The total number of books (hard copy) available at the central library is 860,392 and it is subscribed to 68 electronic databases accessible online; all students can access the digital library of the University 24 hours a day by means of their username and password. There is an internet hall within the central library, which is open from 8:00 till 20:00 for the male and from 8:00 till 14:00 for female students.

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

The experts fully support the plans of the College of Pharmacy to extend and develop its library and computer classes.

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

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

1.3.6 Quality Assurance

The University follows the regulations and accreditation standards of the Saudi National Commission for Academic Accreditation and Assessment (NCAAA), which is an independent body directly cooperating with the national council of higher education. According to the University, the study program “Bachelor of Pharmacy” complies with the standards of the National Qualification Framework of the NCAAA.

From the experts’ point of view, the College of Pharmacy has a well-structured system of quality assurance that is managed by its own Quality and Accreditation Unit. The purpose of the Quality and Accreditation Unit is to provide college-wide consultations with regard to priorities and strategies for quality improvement, to assist internal academic and administrative units in the development of their own quality assurance strategies, to monitor self-assessment processes, to prepare the forms of students and graduate surveys, and to collect academic performance reports.

The College of Pharmacy implements a number of periodical reviews, which follow the requirements and standards determined by the NCAAA. Based on these reviews, the Quality and Accreditation Unit prepares an annual program report and an annual college report at the end of each academic year. The annual program report includes statistics about student’ progression and graduates’ employment, factors influencing the program delivery, and information about the satisfaction rates among graduates and employers, as well as recommendations for further improvement. The annual college report records academic achievements and various administrative and educational activities, as well as projects and community service events, of the college and its members.

At the end of each semester, course instructors have to prepare a course report which is then submitted to the Quality and Accreditation Unit to issue an annual college report. Each course has its own portfolio containing course specifications, course reports, evaluation surveys, and other relevant information. Revision results and modification proposals are discussed with the responsible program coordinator and the Curriculum Unit of the college before they are forwarded to the dean of the college.

The experts were convinced about the sufficiency and completeness of the documents demonstrating the functionality of the quality assurance system of

the University. At the same time though, they recommend the University to do the final edition of the documents (reports, descriptions, results) prepared and submitted within the framework of evaluation and accreditation procedures, both internal and external. The final edition should be implemented institution-wide and should serve the purpose of ensuring a coherent and uniform layout of all documents. In terms of content, the final edition should also enable the University to remove redundant information and thus, to make the documents as precise and subject-specific as possible. The experts are confident, that this will help to make the respective documents more comprehensible and, thus, immensely facilitate the work of external parties involved in the accreditation procedures.

Furthermore, the experts recommend the College of Pharmacy to demonstrate in a clear and transparent manner, how the results of the quality evaluation procedures, reports, questionnaires and feedbacks is implemented for the continuous enhancement and improvement of the education process in the program "Bachelor of Pharmacy". In other words, the college should reveal how such measures of quality assurance can directly lead to changes in the structure and content of the program, in the work of teachers and in the performance of students.

According to the graduate survey in 2012/2013, most of the former students of the program found employment in governmental sector and 66.6% of graduates are satisfied with the study program. According to the results of the employers' survey results, 82% of the participated 15 employers have expressed their contentment with the program and its graduates. In terms of suggestions for improvement, they proposed the University to introduce courses on the development of students' skills in communication, marketing and management, to increase the number of practical courses, and to offer more specialization training hours.

The University provides students with academic and social support necessary for the accomplishment of assignments and the organization of their learning process in general. Each member of the teaching staff has specific office hours for academic consultation and guidance of students. Furthermore, the College of Pharmacy contains an Academic Mentoring Unit, whose function is to provide students with psychological support. The college assigns one mentor for up 20 – 25 students. Mentors are required to meet with students monthly, to support them with academic, social, financial or psychological

problems, to inform graduation year students about job opportunities, and to prepare an individual online report for each student.

The experts came to the conclusion that the college offers primarily individual (head-to-head) discussions and consultations between a student and a teacher. They recommend the College of Pharmacy to organize also discussions in the form of plenums or round-table discussions, when one or several teachers communicate with a group of students. This might help the academic staff to detect and address issues, as well as answer questions that are important for the majority of students. Changes made in the curriculum of the study program in response to students' critique or suggestions should be made public and communicated to students in an appropriate manner.

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

1.3.7 Gender Equality and equal opportunities

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

However, the experts point out that the opening hours of the central library, which are shorter for female students than for their male peers, do not fully comply with the statement of the University. Therefore, the experts strongly recommend the University to guarantee equal access to the existing learning resources for both groups of students.

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

Regarding the admission and compensation measures for students with disabilities and chronic illnesses, the University underlines that only physically and

mentally fit applicants are admitted to the program “Bachelor of Pharmacy”. Physical and medical fitness is one of the main admission requirements of the College of Pharmacy. As written above, the experts agree that the successful completion of higher education program in pharmacy sets certain requirements to the physical constitution and health of students.

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

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

1.4 Summary

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

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

Furthermore, the experts underline the responsibility and the awareness of the role of Mecca as a pilgrimage center, with which representatives of Umm Al-

Qura University perform their duties. The program students also proudly report about their involvement in projects dedicated to the support of pilgrims.

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

The Bachelor program "Bachelor of Pharmacy" has an adequate program design that assures the acquisition of knowledge by students over the whole period of education. The structure and learning outcomes of the study program offer a solid basis of knowledge and skills necessary for the profession of pharmacist. The quality assurance system of the College of Pharmacy is described and explained in detail. The study program has a well-functioning teaching and examination system. Learning material, training equipment, digital technologies and other necessary facilities are provided in a sufficient and accessible manner.

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

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

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

Recommendations for the "Bachelor of Pharmacy" program:

- The College of Pharmacy should present the unique features of the study program "Bachelor of Pharmacy" in a more distinctive and transparent manner. Thereby, the college should particularly pay attention to the precise definition of the learning outcomes, the professional objectives and the structure of the courses of the study program. The study programs "Doctor of Pharmacy" and "Bachelor of Pharmacy" should be easily distinguishable from each other (1.3.1);

- The College of Pharmacy should offer international perspectives and exchange opportunities in the study program in order to ensure the attainment of the pursued learning objectives (1.3.1);
- The teaching staff of the program should review the course descriptions and give more precise details regarding their content, requirements and learning outcomes. Thereby, they should delete redundant information and details irrelevant to the content of a specific course (1.3.2);
- The College of Pharmacy might consider offering more practical hours in the courses dedicated to chemistry (1.3.2);
- The College of Pharmacy should offer sufficient number of laboratory sessions in the courses in general so that the program students can practice in all important areas of pharmaceutical studies, including chemistry, physics, pharmacognosy, pharmaceuticals etc. (1.3.2);
- The College of Pharmacy should modify and describe both study programs "Bachelor of Pharmacy" and "Doctor of Pharmacy" in a conceptual way that clearly fulfills the requirements and reflects the academic level of B Pharm and Pharm D, respectively (criterion 1.3.2);
- The College of Pharmacy should review the descriptions of the program courses in terms of precision, completeness and concision. The information and the facts related to the structure and the content of the program courses should be communicated within and particularly outside of the University as precisely as possible. This is crucial for the transparent and comprehensive presentation of the program (1.3.2);
- The teaching staff of the College of Pharmacy should review the assessment methods applied in the program in accordance with the learning outcomes pursued in every individual course (1.3.4);
- The College of Pharmacy should more actively promote the involvement of its teaching staff in international academic exchange activities and scientific events (1.3.5);
- The College of Pharmacy should monitor the current needs of students regarding the laboratory equipment and space for learning activities based on quality assurance measures (1.3.5);
- The College of Pharmacy should demonstrate in a clear and transparent manner, how the results of the quality evaluation procedures, reports, questionnaires and feedbacks is implemented for the continuous enhancement and improvement of the education process in the program "Bachelor of Pharmacy" (1.3.6);

- The College of Pharmacy should offer not only individual consultation options for students, but organize also discussions in the form of plenums and round-table discussions, when one or several teachers communicate with a group of students. This might help the academic staff to detect and address issues, as well as answer the questions that are important for the majority of students. Changes made in the study program in response to such discussions should be communicated to students. (1.3.6).

Recommendations for all study programs assigned for accreditation:

- The University should consider offering the graduates an additional official document describing the respective program courses and competences obtained by the end of studies together with their graduation diplomas, e.g. a diploma supplement (1.3.1);
- The University should increasingly support its students during the transition period from the academic to professional sphere by establishing a Career Center and encouraging individual colleges and departments to organize more events and consultation opportunities, where students can meet the representatives of various professions and learn about the needs and expectations of prospective employers (1.3.1);
- The University should initiate national and international short-term exchange opportunities for the academic staff and the senior students of the program within the framework of the so-called "summer schools". For this purpose, the University can effectively put into use its numerous contacts with various universities and institutions (criterion 1.3.1);
- The University should consider the combination of the program courses into larger units, e.g. modules, which cover a bigger amount of learning material and are completed with one final examination. This might help to reduce the examination load of students (1.3.2 and 1.3.4);
- The University should explicitly determine the amount of self-study hours and of the total workload of the study programs in a transparent manner. By means of questionnaires, it should assess and plan the number of hours students need to accomplish various tasks. Based on the obtained results, the University should compare and accordingly adjust the expected workload to the experience and learning capacities of students (1.3.2);
- The University should adopt official regulations for students with special needs on the institutional level in order to guarantee a consistent and transparent approach in matters of academic, health and social support.

These institution-wide regulations should determine the units or persons responsible for the organization of support measures for students with disabilities. Furthermore, these regulations should include program-specific requirements to the physical fitness of students (1.3.3 and 1.3.7);

- The University should offer equal access to the existing learning resources for both female and male groups of students. Female students must have the same timeframe and opportunities for working at the library as their male peers (1.3.5);
- The University should organize the final edition of the documents (reports, descriptions, results) prepared and submitted within the framework of evaluation accreditation procedures, both internal and external. The final edition should be implemented institution-wide and should ensure a coherent and uniform layout of all documents. In terms of content, the final edition should remove redundant information and make the documents as precise and subject-specific as possible (1.3.6);
- The University should develop and to publish a concept of gender equality in the form of an official document. This document should serve as a clear and transparent statement that both female and male students and members of the teaching staff, as well as other stakeholders of the University, are provided with equal opportunities and conditions to study and work at the University (1.3.7).