

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



## **Assessment Report**

**for the Application of  
Umm Al-Qura University, Mecca, Saudi Arabia,  
College of Pharmacy  
for the Accreditation of the Bachelor Study Program  
“Doctor of Pharmacy” (Bachelor of Pharmacy)**

AHPGS Akkreditierung gGmbH  
Sedanstr. 22  
79098 Freiburg  
Telefon: 0761/208533-0  
E-Mail: [ahpgs@ahpgs.de](mailto:ahpgs@ahpgs.de)

On-site visit	02./03.05.2016
Expert group	<p>Mr. Prof. Dr. Wolfgang Arnold</p> <p>Mr. Dr. Rolf Heusser</p> <p>Ms. Prof. Dr. Ulrike Holzgrabe</p> <p>Mr. Dr. Adrian Kasaj</p> <p>Mr. Prof. Dr. Stephan Lehnart</p> <p>Mr. Prof. Dr. Gerd Mikus</p> <p>Mr. Prof. Dr. Gerhard Karl Eduard Scriba</p> <p>Mr. Prof. Dr. Dr. Ralf Smeets</p> <p>Mr. Dr. Ulrich Stößel</p> <p>Ms. Martha Hofmann</p>
Decision	21.07.2016

## Table of Contents

<b>1</b>	<b>Introduction .....</b>	<b>1</b>
<b>2</b>	<b>Overview .....</b>	<b>4</b>
<b>2.1</b>	<b>Procedure-related documents.....</b>	<b>4</b>
<b>2.2</b>	<b>Study program.....</b>	<b>6</b>
2.2.1	Structural data .....	6
2.2.2	Qualification objectives and employment opportunities.....	9
2.2.3	Structure of the study program and exam system .....	11
2.2.4	Admission requirements.....	22
<b>2.3</b>	<b>Study conditions and quality assurance.....</b>	<b>25</b>
2.3.1	Human resources .....	25
2.3.2	Facilities .....	26
2.3.3	Quality assurance.....	27
<b>2.4</b>	<b>Information about the University .....</b>	<b>30</b>
<b>3</b>	<b>Expert Report .....</b>	<b>32</b>
<b>3.1</b>	<b>Preliminary remarks.....</b>	<b>32</b>
<b>3.2</b>	<b>Basic information about the study program.....</b>	<b>36</b>
<b>3.3</b>	<b>Expert Report .....</b>	<b>38</b>
3.3.0	Introduction and comprehensive remarks .....	39
3.3.1	Aims and Implementation.....	40
3.3.2	Structure of the study program.....	44
3.3.3	Admission and Feasibility.....	48
3.3.4	Examination System and Transparency .....	50
3.3.5	Teaching staff and Material Equipment.....	51
3.3.6	Quality Assurance .....	54
3.3.7	Gender Equality and equal opportunities .....	56
<b>3.4</b>	<b>Summary.....</b>	<b>57</b>
<b>4</b>	<b>Decision on the recommendation for accreditation.....</b>	<b>62</b>



# 1 Introduction

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

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

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

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

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

---

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

The accreditation procedure is carried out in four steps:

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

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

### **II. Written review**

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

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

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

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

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

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

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

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

## 2 Overview

### 2.1 Procedure-related documents

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

The University submitted the Self-Evaluation Report and the relevant annexes of the bachelor study program “Doctor of Pharmacy” to the AHPGS in electronic format on 30 April 2015. The contract for the assessment and the accreditation of the study program (without the awarding of the official seal of the Accreditation Council of the Foundation for the Accreditation of Study Programs in Germany) was signed by the University and the AHPGS on 18 January 2016.

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

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

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

<b>Annex</b>	<b>Description</b>
<b>1</b>	Executive summary of the bachelor program “Doctor of Pharmacy”
<b>2</b>	Study plan of the program “Doctor of Pharmacy”
<b>3</b>	Course overview
<b>4</b>	Description of the courses offered in the College of Pharmacy
<b>5</b>	Administrative manual of the College of Pharmacy
<b>6</b>	New curriculum competences
<b>7</b>	CV of the teaching staff of the program



<b>8</b>	Teaching interdependence matrix
<b>9</b>	Summer training manual for community/primary care pharmacy practice after the 3rd year of studies
<b>10</b>	Summer training manual for institutional/hospital pharmacy practice after the 4th year of studies
<b>11</b>	Student handout sample, course "Biopharmaceutics"
<b>12</b>	Course report sample, course "Biopharmaceutics"
<b>13</b>	Annual program report, 2012-2013
<b>14</b>	Program specifications of the program "Doctor of Pharmacy"
<b>15</b>	Joint meeting of the Assessment Unit and the Curriculum Unit, 2015
<b>16</b>	Students evaluation survey forms
<b>17</b>	Clerkship manual of the College of Pharmacy

Table 1: Documents specific to the study program "Doctor of Pharmacy"

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

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

Table2. Documents common for all study programs

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

## 2.2 Study program

### 2.2.1 Structural data

University	Umm Al-Qura University
College/Department	College of Pharmacy
Title of the study program	"Doctor of Pharmacy" (D Pharm)
Degree awarded	Bachelor of Pharmacy
Form of studies	Full-time; Sunday – Thursday
Language of instruction	English
Period of education	6 years (1 preparatory year + 4 years of studies + 1 year of clinical training)
Total number of credit hours	221 credit hours
Study hours/credit hours <sup>2</sup>	1 lecture = 1 credit hour 2 laboratory hours/practical sessions = 1 credit hour
Workload	Total: 8,603 hours Contact hours: 2,973 hours Individual work hours: 5,630 hours Practical activity hours: 320 hours (not included into the total amount of credits) Clinical rotations hours: 720 hours (360 hours per semester)
Beginning of the study program	Academic year 2009/2010
Time of admission	Winter semester
Number of available places on the program	50 places for female and 50 places for male students
Number of admitted students	In 2014/2015: - 77 female and 82 male students to the second year, where students of both programs "Bachelor of Pharmacy" and "Doctor of Pharmacy" are studying together; - 15 female and 10 male students to the fourth year of the program "Bachelor of Pharmacy", after students of

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

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

	the college are divided between two programs “Bachelor of Pharmacy” and “Doctor of Pharmacy”
Number of graduates	In 2013/2014 24 female graduates and 7 male graduates
Particular enrollment Conditions	To be admitted to the preparatory year: <ul style="list-style-type: none"> <li>- a high school certificate with at least 90% of performance;</li> <li>- at least 90% of performance in such subjects as English, Chemistry, Physics and Biology;</li> <li>- Ability and Achievement test;</li> <li>- Physical and mental fitness.</li> </ul> To be admitted to the 2 <sup>nd</sup> year of the program: <ul style="list-style-type: none"> <li>- Completion of the preparatory year with high marks.</li> </ul>
Tuition fees	No fees; all students receive monthly financial support of 1000 SAR (Saudi Riyal), which is equal to 245 EUR

Table 3: Structural data of the study program “Doctor of Pharmacy”

According to the *Guidelines for Program Development and Review* determined by the Saudi Arabian National Commission for Academic Accreditation and Assessment (NCAAA), the learning outcomes for pharmaceutical education are set out at two levels: bachelor’s degree in pharmacy (Pharm.B) and a more advanced level (Pharm.D) (see Annex B, pages 46-51). The main difference between the two levels is that the Pharm.B level offers more general pharmacy-related knowledge and skills, whereas Pharm.D focuses on pharmaceutical services and functions required specifically in health care institutions.

Based on these national requirements, the College of Pharmacy offers two study programs: “Bachelor of Pharmacy” and “Doctor of Pharmacy”. Both programs have the same curriculum and structure in the first three years. Only after the completion of the third year, students are classified into two study programs based on their choice and their GPA results. The University indicates that both programs are completed with a bachelor’s degree.

The study program “Doctor of Pharmacy” consists of three main stages: 1) the first year of studies called ‘the preparatory year’, 2) the main period of studies lasting from the second to the fifth year of studies, and 3) one year of clinical training called also ‘the clerkship year’. In total, the program has 73 courses during the studies at the University and 12 clinical rotations during the year of clinical training.

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

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

The preparatory year of the program “Doctor of Pharmacy” consists of ten courses, which is equal to approximately 14% of the whole study curriculum.

The main period of studies in the program lasts from the second to the fifth year. It consists of 63 courses, which can be grouped into the following types:

- University and college requirement courses, among which “Holy Quran”, Islamic Culture”, ”Prophet Profile”, “Arabic Language” are university requirement courses, whereas “Mathematics” is a college requirement course. The program has 11 of such courses and they constitute 15% of the whole study curriculum.
- Courses provided by other study programs, such as “Microbiology”, “Bio-chemistry”, “Physiology (1 and 2)”, “Pathology”, “Molecular Biology”, “Anatomy and Histology”, and “Immunology”. These courses are related to the studies in pharmacy. The program offers eight of such courses and they constitute 11% of the whole study curriculum.
- Program-specific courses, such as “Pharmaceutical Chemistry”, “Pharmacognosy”, “Pharmacology and Toxicology”, “Clinical Toxicology”, “Pharmacoeconomics” and other. These courses constitute the core of the studies in pharmacy. The program offers 44 of such courses and they constitute 60% of the whole study curriculum.

Students of the program 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 four weeks and consists of 320 working hours; no credit hours are allocated for the summer trainings.

During the fifth year of studies, they carry out a research project and write a graduation paper in the course “Research (Graduation) Project”.

After having completed all courses, students can start the internship year in one of the local hospitals. Thus, the sixth year is dedicated to clinical training in 12 different rotations. Upon the completion of the clinical training, students receive the academic title “Bachelor of Pharmacy”.

In Saudi Arabia, all health care practitioners must be registered and must have a record in the database of the Saudi Arabian Commission for Health Specialties (SCHS) (Annex C). The University informs that the graduates of the program “Bachelor of Pharmacy” are directly registered at SCHS after the completion of their studies and, thus, can start working as pharmacists.

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

The learning outcomes for both Pharm.B and Pharm.D programs of the College of Pharmacy cover the knowledge and skills required for professional practice on a level equivalent to bachelor’s degree. The main objective of both programs is to prepare competent pharmacists with extensive pharmaceutical knowledge and professional training. The University aspires to educate specialists committed to working with patients and, thus willing to serve the health-care needs of the local community.

The study program “Doctor of Pharmacy” focuses primarily on pharmacy-related competences and skills required within clinical context. Along with fundamental pharmacy-related knowledge and skills that are taught also on the Pharm.B level, the program pursues the following knowledge outcomes:

- to provide students with communication and collaboration skills necessary for working with patients and different members of healthcare staff, and thus generate a team approach to patient care,
- to teach students to analyze, interpret and retrieve professional texts and scientific literature in order to provide drug information for patients, their families and other involved health care providers,
- to enable students to design, implement, monitor, evaluate and adjust medication therapy plans that are patient-specific and evidence-based.

The study program focuses on the development of students’ cognitive skills of critical thinking, analyses and synthesis, application of concepts and theories in the course of professional work. Furthermore, graduates of the program are expected to be able to undertake problem-solving tasks individually and in

groups, to use general scientific knowledge and skills in a pharmaceutical context and to practice in evidence-based manner (for more details, please see Annex B, pages 48-49).

In addition to that, graduates of the program “Doctors of Pharmacy” are expected to exercise effective leadership in complex professional and social circumstances. They should be able to identify and analyze emerging products and services that may have impact on patient-specific therapeutic outcomes, as well as on medical, staff, informational and technological recourses involved in the provision of patient care (for more details, please see Annex B, pages 49-50).

Regarding the interpersonal skills and responsibilities, the study program teaches students the skills of self-management and time planning, skills of leadership, working in groups, learning from others, and the abilities to adapt to the changing professional environment. Moreover, students are trained to reveal communicational proficiency, as well as competencies of interaction with people from other cultures and social backgrounds. Besides, graduates of the program are expected to be able to carry out numerical calculations and analyses relevant to pharmaceutical practice, to use electronic equipment and pharmacy related software and hardware devices. Finally they should know how to present results of pharmaceutical inquiries for different audiences with the help of information technology (Annex B, pages 50-51).

Through a research project envisaged in the program, students learn about the latest developments in pharmaceutical sciences; they write protocols and a scientific paper, access and work with different information resources, prepare oral presentations, and analyze statistical research data (Self-Evaluation Report 2.1).

Upon graduation, students can find employment in governmental health sectors, such as hospitals and primary health care centers, private hospitals, dispensaries and policlinics. Furthermore, they can work in university and military hospitals, in Saudi Food and Drug Administration, Saudi Organization for Standardization and Metrology, as well as in the institutions of drug production and registration or in research and development laboratories as medical sale representatives. Besides, graduates can choose to pursue a career in higher education institutions in the position of demonstrators, research assistants and teaching assistants. Finally, they also have the opportunity of working for healthcare insurance organizations (Self-Evaluation Report 3.1).

With regard to the reasons for the establishment of the program “Doctor of Pharmacy”, the University explains that there is a considerable demand for pharmaceutical services in the country. This is caused by the fact that a larger amount and variety of medical substances is available in the market than it used to be. As the University underlines, the pharmaceutical industry is actively developing at the moment in Saudi Arabia, which also creates a demand for trained pharmacist to work in such domains as research quality control, production and marketing of drugs and health-care products. Another development in the country is the increasing number of elderly people, who need professional consultation in the choice of effective and, at the same time, financially reasonable medical products. Consequently, the country witnesses that the number of medical prescriptions is noticeably increasing. Thus, the University is striving to respond to the above described circumstances by offering a study program that will train the necessary working forces (Self-Evaluation Report 3.2).

The University underlines that according to the information provided in the *Health Statistics Annual Book* published by the Saudi Ministry of Health, there have been 5.3 pharmacists per 10,000 populations in the year 2012<sup>3</sup>.

According to the Self-Evaluation Report, section 5.6, three batches of graduates have completed the program “Doctor of Pharmacy” by now. Among the graduates of the program of the academic year 2013/2014, approximately one third is employed at the moment (AOQ Pharmacy 42). The University comments that the contact with graduates needs to be further improved; therefore this employment data is not very accurate.

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

The study program “Doctor of Pharmacy” consists of three main stages: the preparatory year, the main period of studies and one year of clinical training. The program has in total 73 courses, ten of which are taught in the preparatory year and 63 in the main period of studies. Out of these 63 courses, 11 are university and college requirement courses, eight are the courses provided by other study programs, and 44 are program-specific courses.

The preparatory year courses focus on basic medical competences, the English language, as well as computer and learning skills. During the main period

---

<sup>3</sup> See the link <http://www.moh.gov.sa/en/Ministry/Statistics/book/Documents/1433.pdf>, page 29 (29.04.2015)

of studies students attend three types of courses: 1) University requirement courses, which include “Holy Quran”, “Islamic Culture”, “Arabic Language”, “Prophet’s Life” and “Mathematics”; 2) courses offered by other study programs, such as “Anatomy”, “Microbiology”, “Biochemistry” and other; and 3) the program-specific courses, like “Therapeutics”, “Pharmacognosy”, “Clinical Pharmacokinetics” and other.

Each semester consists of 14 weeks. The program is offered on a full-time form only. Students of the program have to obtain the total amount of 221 credit hours.

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

Sem.	Title	Credit hours
<b>Prep. year</b>	Basic Biochemistry (1)	2
	Basic Genetics	2
	English Language	6
	Computer Skills (1)	2
	Learning skills	3
	Cell Biology (named also “Cell Physiology”)	3
	Basic Biochemistry (2)	2
	Computer Skills (2)	3
	Medical Physics	4
	Medical English	4
<b>Total credit hours for the 1<sup>st</sup> year</b>		<b>31</b>

Table 4: Study plan of the preparatory year

The main period of studies lasts from the second to the fifth year of studies and contains the following courses:

Sem.	Title	Credit hours
<b>3</b>	Holy Quran (1)	2
	Islamic Culture (1)	2
	Mathematics	2
	Approach to Pharmaceutical Profession	1
	Physiology (1)	3
	Pharmaceutical Organic Chemistry (1)	3



	Microbiology	3
	Pharmaceutics (1)	3
<b>4</b>	Arabic Language	2
	Prophet Profile	2
	Anatomy and Histology	3
	Physiology (2)	3
	Biochemistry	3
	Pharmaceutical Organic Chemistry (2)	3
	Pharmaceutics (2)	4
<b>Total credit hours for the 2<sup>nd</sup> year</b>		<b>39</b>
<b>5</b>	Holy Quran (2)	2
	Islamic Culture (2)	2
	Pharmacognosy (1)	3
	Analytical Pharmaceutical Chemistry (1)	3
	Pharmacology (1)	4
	Pathology	3
	Basic Pharmacokinetics	2
	Pharmaceutics (3)	3
<b>6</b>	Holy Quran (3)	2
	Islamic Culture (3)	3
	Molecular Biology	3
	Immunology	2
	Pharmacognosy (2)	3
	Biopharmaceutics	2
	Pharmacology (2)	3
	Analytical Pharmaceutical Chemistry (2)	3
<b>Total credit hours for the 3<sup>rd</sup> year</b>		<b>43</b>
Summer training after the 3 <sup>rd</sup> year of studies (one month)		-
	Holy Quran (4)	2
	Medicinal Chemistry (1)	3
	Principles of Drugs Information	1
	Pharmacology (3)	3

7	Clinical Pharmacokinetics	1
	Pharmaceutics (4)	3
	Pharmacoeconomics	3
	Therapeutics (1)	3
8	Islamic Culture (4)	2
	Dispensing Medicine	4
	Medicinal Chemistry (2)	1
	Basic and Clinical Toxicology	3
	Adv. Pharmacokinetics and Pharmacodynamics	2
	Therapeutics (2)	3
	Pharmacy Law and Ethics	1
<b>Total credit hours for the 4<sup>th</sup> year</b>		<b>35</b>
Summer training after the 4 <sup>th</sup> year of studies (one month)		-
9	Elective Course (1)	2
	Research/Graduation Project (1)	3
	Alternative and Herbal Medicine	2
	Therapeutics (3)	3
	Therapeutics (4)	3
	Medical Statistics	3
	Self-Care and Non-Prescription	2
	First Aid	1
	Clinical Nutrition	2
10	Hospital Pharmacy	2
	Pharmacy Administration	2
	Medicinal Chemistry (4)	2
	Elective Course (2)	2
	Research/Graduation Project (2)	3
	Therapeutics (5)	3
	Evidence-Based Medicine	3
	Communication Skills	1
<b>Total credit hours for the 5<sup>th</sup> year</b>		<b>39</b>

Table 5: Course overview of the program "Doctor of Pharmacy"

In the sixth year of their studies students complete an internship year, which consists of the following rotations:

Internship Year			
Year	Title of the rotation	Duration	Credit hours
6	Internal Medicine I	4 weeks	3
	Hospital Pharmacy	4 weeks	3
	Ambulatory Care	4 weeks	3
	Community Pharmacy	4 weeks	3
	Pediatrics	4 weeks	3
	Elective I	4 weeks	3
	Cardiology	4 weeks	3
	Internal Medicine II	4 weeks	3
	Internal Medicine III	4 weeks	3
	Infectious Disease	4 weeks	3
	Neuro and Psychiatry	4 weeks	3
	Elective II	4 weeks	3
For the whole internship year		48 weeks (12 months)	36
<b>Total credit hours for the whole program</b>			<b>223</b>

Table 6: Structure of the internship year of the program "Doctor of Pharmacy"

In the fifth year of studies, students can choose two elective courses from the following list of program-specific courses, all of which are offered by the Clinical Pharmacy Department (AOQ Pharmacy 39):

- Advanced Cardio Therapeutics,
- Advanced Pharmacokinetics and Pharmacodynamics,
- Diabetes Therapy,
- Total Parenteral Nutrition,
- Biostatistics,
- Geriatrics,
- Basics of Clinical Research,
- Cosmetics.

The University has provided the detailed description of the program courses, which includes information about the amount of envisaged credit hours, course instructors, completion requirements, learning objectives and out-

comes, course topics, types of courses (lectures, seminars, laboratory sessions and other), self-study requirements, methods of assessment, the schedule of continuous and final examinations, grading scale, students support possibilities, learning resources and the description of course evaluation and improvement procedures (for more details, see Annexes 3 and 4).

Methods of instruction in the program include lectures, tutorials, graduate projects, summer trainings, and various assignments. Students are engaged in group work in the course of research assignments, summer trainings, laboratory sessions and special tasks in some of the courses. Furthermore, in the program courses students are required to write essays and prepare oral presentations.

The University informs that the program courses are taught with the help of electronic and media devices, such as video and data-show presentations. Further-more, the University provides an online platform “Desire2Learn” (D2L), which enables students and teachers to upload different learning resources to make them available for all participants. D2L serves as online space for experience exchange and interaction between staff members and students, as well as an effective examination and feedback tool (AOQ Pharmacy 22).

Students of the program “Doctor 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 credit hours are allocated for these trainings. Summer trainings usually take place in hospitals, community pharmacies, analytical laboratories and manufacturing sites (Self-Evaluation Report 00.16).

The aim of the summer training after the third year is to familiarize students with fundamentals of pharmacy practice in community (primary) care settings and outpatient pharmacies. The College of Pharmacy collaborates with the pharmacy branches of Al Nahdi Medical Company; therefore the first summer training of the program takes place in these premises. The aim of the summer training after the fourth year is to familiarize students with the fundamentals of pharmacy practice in the institutional (hospital) settings. The second summer training takes place at the hospitals of the Ministry of Health, National Guard hospitals and Security Force hospitals, which also collaborate with the College of Pharmacy. The University has manuals for both summer trainings,

which contain the necessary information regarding educational outcomes, regulations, assessment methods, stakeholders' responsibilities and other training-related aspects (please, see Annexes 9 and 10).

During the summer training, students receive support and guidance from college supervisors and training preceptors. A college supervisor is assigned to facilitate students' training process, resolve any emergent issues and to meet with students and training preceptors. A training preceptor is assigned to supervise and guide students directly on the training site, to prepare and conduct discussion sessions, to provide students with feedback including identification of their strengths, weaknesses and progress, and to submit final evaluations to the College of Pharmacy.

With regard to the evaluation methods of the summer training, each student is required to prepare a summary of the training program, which is then revised and assessed by a college supervisor. Furthermore, students' performance is evaluated by a preceptor based on a scale with four levels, while the overall assessment of students for the whole period is formulated as either P (pass) or F (fail). Students who failed in the overall assessment have to repeat the summer training (for details, see the summer training manuals in Annexes 9 and 10).

In 2014, the College of Pharmacy has established a Summer Training Unit, whose function is to supervise the execution of summer training activities and to monitor the achievement of training goals among the third and fourth year students of both programs (Annex 5). In addition to that, there are annual meetings held in the college to discuss the strengths and weaknesses of summer trainings and also to delineate the plan of further development. Finally, summer training programs are evaluated by means of student satisfaction surveys.

As further practical training, students of the program attend a course "Hospital Pharmacy" in the last (tenth) semester of their studies, for which they obtain 2 credit hours. The aim of this course is to provide students with an overview of certain aspects of pharmaceutical services required in health care institutions, and also to enable them to receive a good insight into planning, development, organization and administration of pharmaceutical services within clinical environment. According to the course description, each hospital session has a theoretical a practical part. The course is taught in different hospitals of Mecca and Jeddah region by the respective hospitals pharmacists and the staff

members of the Clinical Pharmacy Department of the college. The program includes training in emergency situations, preparation of different prescriptions and intravenous solutions, management of hospital pharmacy work, communication with patients and hospital staff and proper storage of medical substances (see the description of the course in Annex 4 and AOQ Pharmacy 19).

The University assures the quality of the summer training and of the “Hospital Pharmacy” course by means of student satisfaction surveys, feedback from the hospitals and the regular meetings between hospital supervisors. All these measures are under the direct management of the Vice Dean for Hospital Affairs (Self-Evaluation Report 00 16).

In the sixth year of the program, students are required to do clinical training in one of the regional hospitals. Students are admitted to specific hospitals based on their GPA, hospital entry test and an interview (see the list of hospitals in AOQ Pharmacy 43). This stage of the program prepares students to work in the environment of integrated health care systems. The clinical training year consists of two semesters, in each of them students have to complete six rotations. Hence, there are 12 rotations in total, ten of which are mandatory and two are elective. Each rotation lasts for four weeks and is awarded with three credit hours (see the study plan in Annex 2).

The clinical internship year enables students to improve their knowledge and skills in direct interaction with patients. By the end of the clinical training, students are expected to be able to professionally interact with other members of healthcare team, to perform assessment of patient data, to conduct drug therapy reviews, to develop a pharmaceutical care plan, to perform pharmacokinetic monitoring, to provide patient education and counselling and to manage medication distribution for the optimization of therapeutic outcomes (see the document “Clerkship Manual” in Annex 17 and the Self-Evaluation Report 00 16).

Students’ performance during the clinical training year is evaluated to 60% by the hospital staff and to 40% by the college representatives. Mandatory activities in each rotation include case or topic discussions, case presentations and the participation in the journal club (see Annex 17). There is an online log book for students, where they can see the assessment results at the end of each clinical rotation. Students are supervised during the internship by the academic staff of the Clinical Pharmacy Department.

Concerning international cooperation, the College of Pharmacy informs that it was planning to arrange an experience exchange with Rutgers University, USA in March/April 2016, which has been postponed. With regard to the aspect of internationality of the study content, the courses of the program are said to involve international learning material and thus, to provide students with global perspectives in pharmaceuticals and also to introduce them to the recent developments in professional sphere and research. The fact that English is the main language of instruction (with the exception of the university-requirement courses, which are taught in Arabic) further contributes to the internationalization of the study program (Self-Evaluation Report 00.12).

It should be mentioned that the College of Pharmacy has a Unit of Industry and Education Collaboration whose function is to establish and solidify cooperation between the college and other educational institutions and pharmaceutical companies in Saudi Arabia. This unit is integrated into the hospital affairs, and any partnership is arranged by the vice dean of hospital affairs (Annex 5).

Research is integrated into both programs of the College of Pharmacy in the fifth year of studies through the mandatory course “Research Project”, for which students obtain 6 credit hours. Students are required to choose a research topic from a list of suggested titles. They 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. In the end, students have to present their paper in front of an examination committee (Self-Evaluation Report 00.17 and AOQ Pharmacy 20).

The College of Pharmacy includes a Student Club Unit, which focuses on designing action plans for student development actions, collaboration with external institutes, arrangement of competition events as well as preparation of training courses for students (Annex 5, page 48).

Examination procedures are determined and regulated in the program by the executive rules of the University, which are described in the document *Bylaws Organizing Academic Affairs and Study in Medical Colleges* (Annex A). Students’ final grade for a course is calculated based on students’ grades in class work assignments (10%), laboratory sessions (20%), mid-term examinations (20%) and final examinations (50%). The number of final examinations depends on the number of courses foreseen for any given semester.

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

- continuous assessments, which include various forms home assignments, classwork and quizzes;
- mid-term and mid-year examinations, which are usually carried out in the form of presentations, essays, tests, and practical tasks;
- final examinations, which are carried out in the form of case studies and written assignments.

The College of Pharmacy informs that it has updated its methods of assessment by introducing objective structured clinical examinations (OSCE), case presentations and written reports. Furthermore, this year there were no mid-term exams but only continuous assessments carried out at the college.

The Exam Supervision Unit of the College of Pharmacy is responsible for the construction of the time-table for the mid-term and final examinations. The college is required to inform the Deanship of Admission and Registration about the examination dates two weeks before the beginning of the next semester. Continuous assessments take place throughout the semester, mid-term examinations are usually carried out in the middle 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. According to the University regulations, the college council may assign another instructor to carry out the above-mentioned procedures (Annex A, Art.33).

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

According to the University regulations, students have to obtain at least 60% of performance in clinical tasks and tests in order to successfully complete the courses containing practical assignments (Annex A, page 26). Students whose attendance rate is lower than 75% are not allowed to take the final examinations. When students miss the final exam without an adequate ex-



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

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

The College of Pharmacy ensures the feasibility of evaluation methods through the activity of the Assessment Unit that determines and monitors the application of the examination regulations within the college and that also revises the results of all examination sessions. Examinations are said to be prepared in accordance with the topics and learning objectives of each course (Self-Evaluation Report 00.11).

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

Students' performance in the program "Doctor of Pharmacy" is evaluated according to the following grading system applied at the University:

<b>Letter code</b>	<b>Description of the grades</b>	<b>Percentage %</b>	<b>Grade point (out of 4)</b>	<b>Grade point (out of 5)</b>
A+	Excellent – High	95 –100	4.0	5.0
A	Excellent	90 – 95	3.75	4.75

B+	Very good – High	85 – 90	3.5	4.5
B	Very good	80 – 85	3.0	4.0
C+	Good – High	75 – 80	2.5	3.5
C	Good	70 – 75	2.0	3.0
D+	Pass – High	65 – 70	1.5	2.5
D	Pass	60 – 65	1.0	2.0
F	Fail	<60	0	1.0

Table 6: Grading System

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

#### **2.2.4 Admission requirements**

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

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

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

- they or their mother should be of Saudi nationality; according to the University, only applicants of Saudi nationality are admitted to the program;
- they should have obtained a grade with at least 90% of performance in high school certificate;
- they should have obtained grades with at least 90% of performance in such subjects as chemistry, physics, biology and the English Language;
- their high school certificate should have been obtained maximum two years before the application;

- they have to pass the General Aptitude Test (GAT) as well as the Educational Achievement Test required for medical colleges;
- they should successfully pass an interview set for medical college applicants;
- they should be physically and medically fit;
- they should be well-mannered and well-behaved; this is determined based on applicants' General Secondary School Transcript, which shows their grade for the subject "Conduct" (see Annex G).

Applicants are admitted to the preparatory year based on their individual score calculated out of the secondary school certificate grade (50%), GAT (30%) and the Educational Achievement Test (20%). The General Aptitude Test (GAT) measures applicants' analytical and deductive skills, as well as their learning capacities, e.g. reading comprehension, recognition of logical relations etc. Educational Achievement Test covers the general and key concepts of biology, chemistry, physics, mathematics and English.

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

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

The second and the third years of study are similar for both programs of the college: "Bachelor of Pharmacy" and "Doctor of Pharmacy". After the third year, students are further classified into these two programs (50% to 50%) based on their choice and their GPA results (AOQ Pharmacy 13). So far,

there has been no case of transferring from one program to the other (AOQ Pharmacy 14).

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

- they should have attended a university or college recognized by the Saudi Ministry of Higher Education;
- they should not have a record of dismissal from another university for disciplinary reasons;
- they should have the recommendation from the University's Unified Academic Office as well as the approval of the respective college council;
- transfer candidates must meet the admission and registration conditions of medical colleges of the University;
- they should have studied in a similar medical study program, e.g. pharmacy or medicine;
- they should have passed the most recent academic year in the previous higher education institutions without any fail or reset examination and they should have obtained the grade B (very good) or at least 80% of performance in that year.

Transferring students address their request to the University's Deanship of Admission and Registration. If they fulfill the above-described 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 they will not be counted into their cumulative grade (Annex A, Art.43). In case of internal transfer from one medical college to another, students forward their request to the Unified Academic Office of the University.

Concerning the aspect of special assistance for disabled students, the university underlines that physical and medical fitness is one of the main admission requirements of the program (Self-Evaluation Report 5.10).

In the academic year 2014/2015, there were 77 female and 82 male students to the second year (where students of both programs "Bachelor of Pharmacy" and "Doctor of Pharmacy are studying together) and 15 female and 10 male students to the fourth year of the program "Doctor of Pharmacy", after students of the college are divided between two programs.

## 2.3 Study conditions and quality assurance

### 2.3.1 Human resources

The College of Pharmacy has the same teaching staff for both study programs “Bachelor of Pharmacy” and “Doctor of Pharmacy”. There are 22 female and 32 male full-time members of the teaching staff:

Full-time teaching staff			
Position	Total	Male	Female
Professor	4	1	3
Associate professor	11	7	4
Assistant professor	24	13	11
Lecturer	15	11	4

Table 7: Full-time teaching staff of the College of Pharmacy

The CVs of the full-time members of the teaching staff is available in Annex 7. The total number of part-time staff is 21 members, of whom 11 are male and ten are female teachers.

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

The total number of students in the college is 258 female students and 239 male students (Self-Evaluation Report 2). Thus, the ratio between students and teachers constitutes in the college approximately 11 to 12 female and seven male students per one full-time teacher.

Selection of teaching staff is conducted at the University according to a regulated procedure and requirements for the employment of Saudi, non-Saudi, as well as academic and non-academic staff. These regulations are designed and administered by the Saudi Arabian Ministry of Education. The University announces vacant positions on its website, as well as in local newspapers and through various media sources. The University and college representatives conduct candidate interviews; the departments of the College of Pharmacy can also contribute their recommendation in the decision making process. The University indicates that qualified applicants for teaching positions of Saudi Arabian nationality will have the priority in the recruitment process

than applicants of other nationalities (see AOQ General Questions 8; Annexes E and F).

With regard to the opportunities for further professional development, the University informs that it provides training courses and various workshops for the new and the continuing teaching staff of the program. Thus, teachers can take part in workshops on, for instance, how to write a self-study report for a program and how to apply e-learning methods in class (for more details, see Self-Evaluation Report B1.5).

The College of Pharmacy has a Staff Development Unit that arranges different workshops in accordance with the needs of the staff members. On the institutional level, the Deanship of Development and Quality offers many workshops and seminars targeted at the development of a wide-range of technical and specialty-related competences, as well as administrative, communication and leadership skills. The University indicates that all faculty members are expected to participate in some form of career development activities every year.

Further human resources of the program include 38 female and 29 male demonstrators, two female and three male laboratory technicians, as well as six female and eight male administrative staff members.

### **2.3.2 Facilities**

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 of tablets (AOQ Pharmacy 24).

According to the College of Pharmacy, the lecture rooms are equipped with projectors and smart boards. The University has an online platform “Desire2Learn” (D2L), which also facilitates the learning and teaching activities in the college. 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 (AOQ General Questions 9).

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. The University underlines that there are workshops offered for students and members of the teaching staff on how to access and use different databases (AOQ General Questions 10).

The University is planning to renovate the building and to establish an individual library within the College of Pharmacy. Furthermore, the college is planning to open three computer laboratories: two with the capacity of 50 computers and one with the capacity of 25 computers.

According to the University, the College of Pharmacy receives financial support from the University budget (Self-Evaluation Report B 3.4).

### **2.3.3 Quality assurance**

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

The mission of the College of Pharmacy is to provide a student-centered and research oriented educational environment for all students, to establish collaboration with national and international institutions, and to contribute to the improvement of the community health care services<sup>4</sup>. The Vision of the College of Pharmacy is to apply innovations in pharmaceutical practices, to advance health care and to achieve excellence in pharmacy research.

---

<sup>4</sup> For more information, see the official website of the College of Pharmacy: <http://uqupharmacy.net/>

The College of Pharmacy has its own Quality and Accreditation Unit, which operates under the supervision of the college dean and the vice-dean for development and community service. The Quality and Accreditation Unit serves 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 (Self-Evaluation Report 5.2).

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 (see Annex 13) and an annual faculty 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 faculty report records academic achievements and various administrative and educational activities, as well as projects and community service events, of the college and its members.

The College of Pharmacy has a Curriculum Committee that regularly reviews the program curriculum and an Assessment Unit that monitors student assessment methods and supervises exam preparation (see the results of the joint meetings between these units in Annex 15).

Each course instructor has to produce a course report at the end of each semester. The course report contains information about the study process and students' performance, as well as the results of their evaluation of the course (see a sample of a course report in Annex 12). The course report contains full analyses of the course, obstacles experienced in the process of studies and further improvement recommendations, as well as the results of students' evaluations of the course. All course reports are then submitted to the program coordinator, who in turn forwards them to the Quality and Accreditation Unit. Each course has its own portfolio containing course specifications, course reports, evaluation surveys, and other relevant information (Self-Evaluation Report 5.2).



Students of the program are actively involved in quality assurance procedures of the college. Thus, they are required to submit an academic staff assessment survey and a course evaluation survey at the end of each semester (Annex 16). The results of these anonymous surveys are then included into the course reports.

The evaluations of teaching strategies and of the course instructors are based on several factors: comments and suggestions of various members of the teaching staff, the results of students' surveys, calculation of students' performance and grades in each course, and graduate surveys. In addition, the college is planning to conduct a comparison of the study content and its learning objectives with those of other national and international colleges and faculties of Pharmacy (Self-Evaluation Report 5.3).

The college distributes also periodical surveys for graduates and employers six months after the completion of the program in order to determine the employment percentage and to monitor the level of satisfaction with the program.

The relevance of the study program "Doctor of Pharmacy" to the future professional practices is maintained with the help of surveys for graduates and employers. Besides, the program receives regular consultation from an Advisory Committee, which consists of representatives of the pharmaceutical field (see the list of members in AOQ Pharmacy 25). Every year, the college arranges a meeting with the Advisory Committee in order to receive input about the needs of the labor market.

Information about the program "Doctor of Pharmacy", its mission and objectives, study plan, list of elective courses and graduation requirements are available on the website of the College of Pharmacy. Students are informed about the objectives, requirements, attendance sheets, and assessment methods of each course in advance through course handouts (see a sample in Annex 11).

With regard to students support mechanisms, each member of the college 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, to help them increase their social and academic confidence, to contribute to the interaction between the college and students and to enable obtaining of students' feedback on various matters (Annex 5).

The college assigns one mentor for up to 20-25 students. Mentors are required to meet with students monthly, to support those 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. These reports contain the name of a student, course grades, attendance information, behavior description, and problems encountered during the semester, if there were any (AOQ Pharmacy 27).

All students are provided with a University email address through which they receive notifications and instructions from different units and departments of the University. Finally, they can learn about their performance in midterm, practical and final examinations through the college website.

The University assures to provide equal admission, study and examination procedures for both male and female students. The program is said to be implemented in the same manner, quality and quantity in the male and female sections of the college (Self-Evaluation Report 5.9).

Regarding special assistance for disabled students, the University underlines that only physically and mentally fit applicants are admitted to the program (Self-Evaluation Report A5.10).

## **2.4 Information about the University**

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

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

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

teaching skills and to encourage the research activity among its members (Self-Evaluation Report C 1.3).

The College of Pharmacy has been established in 2006 and it has five departments at the moment: the Department of Pharmacognosy, the Department of Pharmaceutics, the Department of Pharmaceutical Chemistry, the Department of Pharmacology and Toxicology, and the Department of Clinical Pharmacy. Furthermore, the College of Pharmacy includes the following units and committees: Assessment Unit, Curriculum Unit, Media Unit, Summer Training Unit, Clerkship Unit, Quality and Accreditation Unit, Evaluation and Survey Unit, Graduate Unit, Industry and Education Collaboration Unit, Research and Laboratories Unit, Recruitment Unit, Student Club Unit, Exam Supervision Unit, Students Research Unit, Academic Mentoring Unit, Safety Unit and other (Annex 5).

The College of Pharmacy offers two study programs: “Bachelor of Pharmacy” and “Doctor of Pharmacy” both completed with a bachelor’s degree in pharmacy. The first batch of 46 female and 27 male students has been admitted to the program “Bachelor of Pharmacy” in the academic year 2007/2008. The first batch of 11 female and 4 male students has been admitted to the program “Doctor of Pharmacy” in the academic year 2009/2010.

At the moment the program “Doctor of Pharmacy” has 47 female and 22 male students in total, whereas the program “Bachelor of Pharmacy” has 211 female and 217 male students in total.

With regard to the current developments, the College of Pharmacy is planning to establish three computer laboratories, its own library and a research laboratory. Furthermore, the college is preparing for the accreditation by the national accreditation agency NCAAA (Self-Evaluation Report C 2).

### **3 Expert Report**

#### **3.1 Preliminary remarks**

The study programs of Umm Al-Qura University, Mecca, Kingdom of Saudi Arabia, are required to be accredited by an international accreditation agency based on the study program of the University. The accreditation criteria of the Accreditation Agency in Health and Social Science (AHPGS) are the formal basis for the accreditation decision. These criteria are documented and regularly updated on the AHPGS<sup>5</sup> website. Any accreditation criteria applied by the AHPGS are in accordance with criteria and requirements previously established throughout the Federal Republic of Germany, which are based on the “Standards and Guidelines for Quality Assurance in the European Higher Education Area” (ESG) as established by the European Association for Quality Assurance in Higher Education (ENQA).

Seven major criteria exist, which are structured as follows:

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

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

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

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

---

<sup>5</sup>[http://ahpgs.de/wp-content/uploads/2011/10/Criteria\\_AHPGS\\_englisch.pdf](http://ahpgs.de/wp-content/uploads/2011/10/Criteria_AHPGS_englisch.pdf)

- 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 Kasaj<sup>6</sup>**

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

**Prof. Dr. Stephan Lehnart**

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

---

<sup>6</sup> 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.

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

The main objective of the bachelor study program “Doctor of Pharmacy” (Pharm D) offered at the College of Pharmacy is to prepare competent pharmacists with extensive pharmaceutical knowledge and professional training. The study program focuses primarily on pharmacy-related competences and skills required within clinical context.

“Doctor of Pharmacy” is a full-time study program with the regular duration of five years/ten semesters followed by a one-year clinical training. To be more exact, the structure of the program consists of the preparatory (first) year, four years of the main study period and one year of clinical training, thus six years in total. The program curriculum consists of 73 courses, ten of which are taught in the preparatory year and 63 during the main period of studies.

The study program requires the obtainment of 221 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 8,603 hours in total, of which 2,973 are contact hours and 5,630 are self-study hours. In addition to that, students have to complete 320 hours of summer training after the third and the fourth year, and 720 hours of clinical rotations in the last year, which are 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 15 female and ten male students assigned to the program "Doctor 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 up to now, 20 to 30% of all third year students of the College of Pharmacy are assigned to the program “Doctor of Pharmacy”. Starting from the academic year 2015-2016, 50% of students are assigned in each program.

After the completion of the sixth year of studies, students of the program start a year of clinical training in one of the local hospitals. Upon the completion of the clinical training, 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.

### **3.3 Expert Report**

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

Prior to the on-site visit, the expert group met on 1 May for the initial discussion and briefing by the 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 “Doctor 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 Uni-

versity representatives and students serve as the basis for the statements given by the expert report.

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

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

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

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

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

### **3.3.1 Aims and Implementation**

The study program “Doctor of Pharmacy” aims at educating pharmacists committed to working with patients and willing to serve the health-care needs of the local community. Students learn to analyze, interpret and retrieve professional texts and scientific literature in order to provide drug information for patients, their families and other involved health care providers. They are expected to know the main sources of drugs, their physio-chemical properties, therapeutic effects and methods of their application and delivery. The program graduates must also be able to design, implement, monitor, evaluate and adjust medication therapy plans that are patient-specific and evidence-based. By the end of their studies, students of the program are expected to have acquired communication and collaboration skills necessary for working with patients and different members of healthcare staff. According to the clinical orientation in the last year, the graduates are especially qualified to work in the clinical setting of hospital pharmacies. This fact was also emphasized in the discussion with the teaching staff during the on-site visit.

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 “Doctor 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 iden-

tical 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 docu-

ment 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 and of the internship year, 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.

As mentioned earlier, the experts firmly recommend the College of Pharmacy to precisely define the employment objectives of the study program “Doctor of Pharmacy”. Thereby, it should be particularly described, what professional areas and positions are available for the program graduates and make them different from the graduates of the program “Bachelor of Pharmacy”. The differences should also be more distinctly reflected in the coursework and topics taught in the respective study programs.

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 cur-

rent employment capacities of the country. Independent of the answer to this question, the experts concluded that the University should increasingly support its students during the transition period from the academic to professional sphere, so that a larger number of graduates will be employed. For that, the University should establish a Career Center and encourage individual colleges and departments to organize more events and consultation opportunities, where students can meet the representatives of various professions and learn about the needs and expectations of the prospective employers.

The students of the program “Doctor 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.

### **3.3.2 Structure of the study program**

The study program "Doctor of Pharmacy" consists of 73 courses in total, ten of which are taught in the preparatory year and 63 are taught from the second to the sixth year of studies. Of these 63 courses, 11 are university and college requirement courses, eight are courses provided by other study programs, and 44 are program-specific courses. The regular study period in the program constitutes five years/ten semesters. The internship year consists of 12 rotations, each lasting for 4 weeks and assigned with three credit hours.

From the experts' point of view, the study program "Doctor 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. advanced cardio therapeutics, geriatrics, diabetes therapy 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. 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 example, the course “Medicinal Chemistry I” requires the successful completion of all courses taught in the third year of studies. The experts underline, however, that there is no conceptual connection between medicinal chemistry and subjects such as pharmacognosy of immunology. 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 metabolism. Besides, the program management should consider including more courses dedicated to the studies of advanced drugs, e.g. the role of antibodies, vaccines etc. and to expand the amount of molecular biology. At the same time, the experts believe that pharmacognosy is perhaps overrepre-

sented 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 considering the implementation of further development actions.

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”<sup>7</sup>).

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

Students of the program “Doctor 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. One year of clinical internship is foreseen in the

---

<sup>7</sup> See the link: [http://ec.europa.eu/education/library/publications/2015/ects-users-guide\\_en.pdf](http://ec.europa.eu/education/library/publications/2015/ects-users-guide_en.pdf) (11.05.2016)

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, pharmaceuticals etc.

After the fifth year of studies, students start the year of clinical training in one of the local hospitals. Students are assigned to specific hospitals based on their GPA, hospital entry test and an interview. The clinical training year consists of two semesters, in each of them students have to complete six rotations. This stage of the program prepares students to work in the environment of integrated health care systems, specifically in the clinical environment of hospital pharmacies. The graduates will become partners of medical doctors providing optimized health care to patients.

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

### **3.3.3 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 "Doctor 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.

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

The University implements bylaws that regulate the study process, grading and examinations on the undergraduate level. Methods of assessment of students' performance can be grouped into the following types: continuous assessments, midterm and midyear examinations, and final examinations. Continuous assessments take place throughout the semester; midterm and midyear examinations are usually carried out in the middle of 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 program, 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 1 and Patient Assessment”, “Hospital Pharmacy”, “Community Pharmacy” and “Self-Care and Non-Prescription Drugs”. 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 “Doctor of Pharmacy”, including its mission and objectives, admission requirements, Student Guide, study plan, module overview, list of competencies, curriculum as well as clerkship (internship) manual, 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 concluded that the requirements of the criterion are in general met.

### **3.3.5 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 strongly 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.

### **3.3.6 Quality Assurance**

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

With regard to the graduation and employment statistics, the experts firmly recommend the management of the study program “Doctor of Pharmacy” to prepare and present the results of the respective questionnaires in a more transparent and comprehensive manner.

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 to 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.

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

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

more, the University should also adopt official institution-wide regulations that will determine what units or persons are responsible for the organization of support measures for students with disabilities and how these measures are to be implemented. Thanks to such regulations, the University will have a solid basis for taking decisions regarding students with special needs in a transparent and objective way.

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

### **3.4 Summary**

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

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

Furthermore, the experts underline the responsibility and the awareness of the role 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 "Doctor 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 “Doctor 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 “Doctor of Pharmacy” program:

- The College of Pharmacy should present the unique features of the study program “Doctor 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 precisely define the employment objectives of the study program “Doctor of Pharmacy” by describing the professional spheres and positions that are available specifically for the graduates of this program(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, pharmaceutics 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 “Doctor of Pharmacy” (1.3.6);
- The management of the study program “Doctor of Pharmacy” should prepare and present the results of graduation and employment statistics in a more transparent and comprehensive manner (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).

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

The resolution of the Accreditation Commission of the AHPGS of 21 July 2016 is based on the University's application documents, the experts' written reviews and the results of the on-site visit described in the Expert Report. Moreover, the Accreditation Commission took into account the response opinion of the University regarding the study program submitted by the University on 4th July 2016 (attachment 1 to the final report).

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

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

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

The bachelor study program "Doctor of Pharmacy" completed with the academic degree "Bachelor of Pharmacy" is accredited. The regulated study period of the program is 5 years/10 semesters in full-time form followed by a one-year internship. The study program comprises 73 courses, ten of which are the preparatory year courses, 44 are the program-specific courses, 11 are the university and college requirement courses, and eight are the courses offered by other study programs. The study program is offered for both female and male students.

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

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

## **Attachment 1: Response opinion to the expert report**

**The expert report was send to the University by Email at the 17.06.2016, the response opinion to the expert report was sent to AHPGS by Email at the 04.07.2016.**

## Factual corrections

### Page 5:

320 hours of summer training after the third and the fourth year, and 720 hours of clinical rotations in the last year, which are not included into the total amount of credits.

**Correction:** credit hours of the clinical rotations are included in the total amount of credits

720 contact hours = 36 credit unit/out of total 221 CU

### Page 7:

experts deduced that 20 to 30% of all third year students of the College of Pharmacy are assigned to the program "Doctor of Pharmacy".

**Correction:** Starting from the academic year 2015-2016, 50% of students are assigned in each program

### Page 13&14:

of complexity of the learning material. The experts positively noted the fact that the pro-gram includes program-specific elective courses, e.g. in industrial pharmacy, drug delivery, marketing and other.

**Correction:** elective courses for PharmD students include:

advanced cardio therapeutics

geriatrics

diabetes therapy

advanced pharmacokinetics & pharmacodynamics

Total parenteral nutrition

biostatistics

basic clinical research

## Page 15:

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 ex-

**Correction:** Students already learn molecular biology in 3rd year, semester 2 please visit college website for the study plan <http://pharmacy.uqupharmacy.net/home/pharmd>

## Page 17:

comprises 320 working hours. No clinical internship is foreseen in the program. The aim of the first summer training is to familiarize students with fun-

**Correction:** There is one year internship in the program (12 clinical rotations = 36 CU)

## Page 23:

The experts fully support the plans of the College of Pharmacy to establish its own library and additional computer classes.

**Correction:** The library was already established and the experts visited it during the on site visit. Please visit the following link <http://pharmacy.uqupharmacy.net/home/college-gallery/category/29-male-section>

## College of Pharmacy response opinion regarding aspects of the content

### Page 10:

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.

**Pharmacy opinion:** The burden of clinical courses in PharmD program is higher than that in BPharm program, e.g. PharmD students study 5 courses of therapeutics while BPharm students study only 2 courses of therapeutics. In addition, the one year clinical training includes 12 clinical rotations = 36 CU corresponding to 16.3% of the total credit units of the program. In addition, 9% of the total CU corresponds to other compulsory clinical courses + 2.7% elective clinical courses taught in PharmD program only. Therefore, more than 28% of the CU of PharmD program are completely different from BPharm program.

### Page 10:

difficulties when confronted with the question, what of the two study programs 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

**Pharmacy opinion:** In meantime in Saudi Arabia, there are equal opportunities for employment for both BPharm and PharmD graduates. Both graduates have similar career options.

## Page 10:

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

**Pharmacy opinion:** The exact description and study plans of both programs are already published on the college website

<http://pharmacy.uqupharmacy.net/home/pharmd>

<http://pharmacy.uqupharmacy.net/home/pharmd-2>

## Page 11:

As mentioned earlier, the experts firmly recommend the College of Pharmacy to precisely define the employment objectives of the study program "Doctor of Pharmacy". Thereby, it should be particularly described, what professional areas and positions are available for the program graduates and make them different from the graduates of the program "Bachelor of Pharmacy". The

**Pharmacy opinion:** In meantime in Saudi Arabia, there are equal opportunities for employment for both BPharm and PharmD graduates. Both graduates have similar career options.

## Page 12:

ployed. 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.

**Pharmacy opinion:** Every two years the college arranges the Career Day for fourth and fifth year students. Representatives from different pharmacy fields are invited to advise the students about different career options. But according to the culture of Saudi graduates, they always prefer to work at governmental sector where permanent contract with constant salary and fixed



working hours. So, they always wait till get jobs in governmental hospitals, while few numbers seek for other job opportunities. In addition, the announcement for governmental vacancies is always at February or March; this means that graduates seeking for governmental sector should wait at least six months after graduation till get employed.

## Page 12:

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.

**Pharmacy opinion:** The ministry of education arranges an "Annual Student's Conference" where students from all universities all over the kingdom meet and present their outstanding research articles and innovations. Moreover, the college of Pharmacy annually arranges the "Pharmaceutical Innovation Exhibition" where students from different universities meet and present their research.

## Page 14:

some improvement. For example, the course "Medicinal Chemistry I" requires the successful completion of all courses taught in the third year of studies. The experts underline, however, that there is no conceptual connection between medicinal chemistry and subjects such as pharmacognosy of immunology. 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.

**Pharmacy opinion:** The course coordinator in this statement means that students learn this course in fourth year after completion of 3rd year courses. Then he explained this statement by the following: the students should have the ability to comprehend and appreciate the fundamentals of organic chemistry, analytical chemistry, pharmacology and biochemistry

please visit college website:  
[http://pharmacy.uqupharmacy.net/home/images/Medicinal\\_Chemistry\\_I\\_1805425-3.rar](http://pharmacy.uqupharmacy.net/home/images/Medicinal_Chemistry_I_1805425-3.rar)



## Page 14:

their content, requirements and learning outcomes. At the same time, it is recommended to limit the description for each course to two pages deleting

**Pharmacy opinion:** As you mentioned at the beginning of the report, we are committed to the National Commission for Academic Accreditation and Assessment (NCAAA), consequently we should use their templates for program and course specification.

This year we revised and updated our course specifications. Please visit the College website:

<http://pharmacy.uqupharmacy.net/home/quality-unit-7>

## Page 15:

During the assessment procedure, the experts discussed whether the program offers sufficient courses dedicated to the fundamentals in chemistry. From the

**Pharmacy opinion:** Through the program, students learn 2 courses of organic chemistry, 2 courses of analytical chemistry and 3 courses of medicinal chemistry.

## Page 15:

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

**Pharmacy opinion:** As you mentioned at the beginning of the report, we are committed to the National Commission for Academic Accreditation and Assessment (NCAAA), consequently we should use their templates for program and course specification.

This year we revised and updated our course specifications. Please visit the College website:

<http://pharmacy.uqupharmacy.net/home/quality-unit-7>

<http://pharmacy.uqupharmacy.net/home/>

## Page 17:

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, pharmaceuticals etc.

**Pharmacy opinion:** The hours of laboratory work are sufficient. Most courses have 2 hours for practical work. e.g. organic chemistry, pharmaceuticals 1,2,3 and dispensing of medications,  
Please visit the following link for courses portfolios:

<http://pharmacy.uqupharmacy.net/home/quality-unit-7>

## Page 19:

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 se-

**Pharmacy opinion:** we updated our assessment methods,  
No midterm  
Assessment methods include:  
continuous assessment  
final written exams (50% MSQs + 50% short essay questions)  
OSCE exam for fourth and fifth year

## Page 20:

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 1 and Patient Assessment", "Hospital Pharmacy", "Community Pharmacy" and "Self-Care and Non-Prescription Drugs". Besides, the experts observed that multiple choice questions seem to be applied too often in some

**Pharmacy opinion:** This year, second semester, OSCE exam is applied for fourth and fifth year students.

The structure of written exam includes: 50%MCQs + 50% short assay questions

### Page 24&25:

With regard to the graduation and employment statistics, the experts firmly recommend the management of the study program "Doctor of Pharmacy" to prepare and present the results of the respective questionnaires in a more transparent and comprehensive manner.

**Pharmacy opinion:** All graduate, employer, students and staff members questionnaires results and recommendations are uploaded to the college website

<http://pharmacy.uqupharmacy.net/home/quality-unit-16>

<http://pharmacy.uqupharmacy.net/home/quality-unit-15>

<http://pharmacy.uqupharmacy.net/home/quality-unit-10>

### Page 25:

er. 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

**Pharmacy opinion:** The Dean and the academic affairs regularly arrange open discussions with students' representatives from each level

### Page 28:

The College of Pharmacy should precisely define the employment objectives of the study program "Doctor of Pharmacy" by describing the professional spheres and positions that are available specifically for the graduates of this program(1.3.1);

**Pharmacy opinion:** In meantime in Saudi Arabia, there are equal opportunities for employment for both BPharm and PharmD graduates. Both graduates have similar career options.



## Page 28:

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);

**Pharmacy opinion:** All courses documents are revised and updated this year. Please visit the college website:

<http://pharmacy.uqupharmacy.net/home/quality-unit-7>

## Page 28:

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, pharmaceutics etc. (1.3.2);

**Pharmacy opinion:** The hours of laboratory work is sufficient. Most of courses have 2 hours for practical work. e.g. organic chemistry, pharmaceutics 1,2,3 , dispensing of medications and pharmacognosy

## Page 28:

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);

**Pharmacy opinion:** This year, the programs specifications and courses specifications were reviewed, updated and uploaded to the college website <http://pharmacy.uqupharmacy.net/home/>

## Page 29:

The management of the study program "Doctor of Pharmacy" should prepare and present the results of graduation and employment statistics in a more transparent and comprehensive manner (1.3.6);

**Pharmacy opinion:** All graduate, employer, students and staff members questionnaires results and recommendations are uploaded to the college website

<http://pharmacy.uqupharmacy.net/home/quality-unit-16>

<http://pharmacy.uqupharmacy.net/home/quality-unit-15>

<http://pharmacy.uqupharmacy.net/home/quality-unit-10>

## Page 29:

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).

**Pharmacy opinion:** The Dean and the academic affairs regularly arrange open discussions with students' representatives from each level.