

*Praise be to Allah who taught man what he did not know and guided His servants through knowledge to the path of piety and obedience to Him. He Himself says in the Holy Book: Only those of his servants who are endowed with knowledge truly fear Allah. (35:28). And Allah's peace and blessing be upon Prophet Muhammad who taught humanity all things good, and guided it to righteousness and piety.*



**H. H. Shaikh Khalifa Bin Zayed Al Nahyan**  
President of the United Arab Emirates



**H. H. General Shaikh Mohammad Bin Rashid Al Maktoum**  
Vice President and Prime Minister of the  
United Arab Emirates and Ruler of Dubai



**H. H. Shaikh Hamdan Bin Mohammed Bin Rashid Al Maktoum**  
Crown Prince of Dubai



*Haji. Saeed Bin Ahmed Al Lootah*  
*Founder and Chairman*  
*Board of Trustees*



*Eng. Yahya Saeed Al Lootah*  
*Vice Chairman,*  
*Member Board of Trustees*

## DPC Academic Calendar- Academic Year 2016-2017 (1437-1438)

### First Semester

Event	Day	Date	Date/ Hijri
Beginning of 1 <sup>st</sup> Semester	Sunday	28/08/2016	25 11/1437
Orientation & Beginning of M. Pharm 1 <sup>st</sup> Semester classes	Friday	02/09/2015	01/12/1437
Beginning of M. Pharm 3 <sup>rd</sup> Semester classes	Friday	02/09/2015	01/12/1437
Beginning of 1 <sup>st</sup> Year classes and Welcoming Ceremony	Sunday	04/09/2016	03/12/1437
Mid- Semester Exams; 1 <sup>st</sup> , 2 <sup>nd</sup> and 3 <sup>rd</sup> year	Sunday	23/10/2016	22/01/1438
Beginning of Final Exams of 4 <sup>th</sup> year	Sunday	20/11/2016	20/02/1438
Winter Vacation	Sunday to Saturday	18/12/2016 to 31/12/2016	19/03/1438 to 02/04/1438
Beginning of Final Exams for 1 <sup>st</sup> , 2 <sup>nd</sup> and 3 <sup>rd</sup> years	Monday	02/01/2017	04/04/1438
Beginning of Final Exams for M. Pharm 1 <sup>st</sup> & 3 <sup>rd</sup> Semester	Friday	06/01/2017	09/04/1438
Beginning of Re-sit Exams for 1 <sup>st</sup> , 2 <sup>nd</sup> and 3 <sup>rd</sup> years	Sunday	05/02/2017	08/05/1438

### End of First Semester – No Holiday

### Second Semester

Beginning of 2 <sup>nd</sup> Semester for 4 <sup>th</sup> Year	Monday	02/01/2017	04/04/1438
Commencement of Classes for M. Pharm 2 <sup>nd</sup> Semester	Friday	10/02/2016	13/05/1438
Commencement of Classes for 1 <sup>st</sup> , 2 <sup>nd</sup> and 3 <sup>rd</sup> years	Sunday	12/02/2017	15/05/1438
Beginning of Final Examination of 4 <sup>th</sup> year	Sunday	19/03/2017	20/06/1438
Mid Semester Vacation	Sunday to Saturday	26/03/2017 to 01/04/2017	27/06/1438 to 04/07/1438
Beginning of Mid- Semester Exams; 1 <sup>st</sup> , 2 <sup>nd</sup> and 3 <sup>rd</sup> year	Sunday	09/04/2017	12/07/1438
Beginning of Final Examinations for 1 <sup>st</sup> , 2 <sup>nd</sup> and 3 <sup>rd</sup> years	Sunday	04/06/2017	09/09/1438
Beginning of Final Exams for M. Pharm 2 <sup>nd</sup> Semester	Friday	09/06/2017	14/09/1438
Announcement of all results	Wednesday	18/07/2017	24/10/1438
Beginning of Re-sit Exams	Monday	04/09/2017	13/12/1438
Summer Vacation Begins	Sunday	23/07/2017	29/10/1438



Event	Date
Eid Al Adha Holiday	Sun, 11/9/2016 – Thu, 15/9/2016
Hijri New Year	Sun, 02/10/2016
Student Leisure Trip- 1	3 <sup>rd</sup> or 4 <sup>th</sup> week of November, 2016
Martyr's Day	Wed, 30/11/2016
UAE National Day	Fri, 02/12/2016 – Sat, 03/12/2016
New Year's Day	Sunday, 1/1/2017
Prophet's Birthday	Mon, 12/12/2016 (12 <sup>th</sup> Rabi- Al Awal)
Student Leisure Trip- 1	3 <sup>rd</sup> or 4 <sup>th</sup> week of April, 2017
End of Year Ceremony	3 <sup>rd</sup> or 4 <sup>th</sup> week of May, 2017
Isra'a & Mirag	Mon, 24/4/2017 (27 <sup>th</sup> Rajab)
29 <sup>th</sup> Ramadan – Eid Al Fitr Holiday	Sun, 25/06/2017 – Tue, 27/06/2017
Note: Islamic holidays are determined after sighting of the moon. Thus actual dates may not coincide with the dates in the calendar	
Beginning of Academic Year 2017-2018 will be on: Monday 04/09/2017	



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## Haji Saeed Bin Ahmed Al Lootah

### The Founder and Chairman of Dubai Pharmacy College

Founder and Chairman **Haji Saeed Ahmed Al Lootah** is famous for his diverse and successful business ventures, non-profit educational institutions, entrepreneurship, veracity as well as its profound dedication to corporate citizenship and sustainable development. His success spans across key business sectors from construction, real estate and energy conservation, to financial services, applied research, ICT, education, hospitality, media and healthcare among others.

With the enduring values of education, cooperation and economy which set the foundations of his work, Dubai Pharmacy College for Girls was established in 1992. The first pharmacy college, accredited by the Ministry of Higher Education and Scientific Research, UAE, is the result of single minded dedication of this great visionary.

His earlier educational ventures of importance and repute are- The Islamic School for Training and Education, Dubai Medical College for Girls, Dubai Institute for Environmental Research and Dubai Medical Centre for Treatment and Research.

Thanks to his vision and leadership, Dubai Pharmacy College for Girls continues to demonstrate unique values that extend well beyond its functional benefits creating greater economic, social and environmental benefits for people in the United Arab Emirates and beyond.



## PREFACE: an insight into Dubai Pharmacy College



*Prof. Dr. Saeed Ahmad Khan  
Dean, Dubai Pharmacy College*

This is a challenging time to enter the pharmacy profession. With each passing year, the number of prescriptions increases and so does the role of a pharmacist. Welcome to Dubai Pharmacy College for Girls that offers an absolutely first-rate B.Pharm program, and so much more, all built on a tradition of excellence. That tradition is very long indeed.

Established in 1992 by Haji Saeed Ahmed Al Lootah, DPCG offered the first B.Pharm degree program in the Gulf region. In recognition, our College is accredited and licensed by the Ministry of Higher Education and Scientific Research, UAE in 1998. So, the Degree program has worldwide recognition. It is also endowed with the Dubai Quality Appreciation Award in 2004.

The modern facilities provided in the classrooms and, teaching and research labs would be a solid atmosphere for students who wish to study in pursuing a career as pharmacists who hold their own firm opinions based on scientific knowledge and researchers leading the field of Pharmaceutical Science and Life Science.

The curriculum has been designed to integrate the natural and social sciences with practice experience so that students will be able to learn, remember, and apply what they have been taught. Graduates of the DPCG program will learn to work collaboratively with other healthcare practitioners to help patients manage their medication regimens.

Early practice experiences will help DPCG students learn to communicate with patients, solve problems related to medications, and manage themselves and others in a practice environment. The practice experiences will become increasingly more challenging as students move through the student-centered curriculum. The fourth year will be entirely experiential. Students will complete over 900 hours of Professional Practice Experience (PPE) in community pharmacies, hospitals and pharmaceutical industries during their four years of study, enough to prepare them to enter practice upon graduation.

Every aspect of the teaching and learning processes will be continuously assessed to ensure that students are learning and instructors are teaching appropriately. Students, with the help of faculty advisors, will prepare Project portfolio to showcase their best work and document their progress in mastering the program's educational outcomes.

Dubai Pharmacy College for Girls is proud of its tradition of close faculty student relations. We welcome all of you who have a strong will to fulfill your dreams as competent and successful healthcare providers. I assure, DPCG students will be well prepared to help patients manage their medication regimens and improve their quality of life.

Around the globe we have more than 600 alumni. Most of them are well placed or working towards higher degree in the US, UK, Canada, India, Syria, Egypt, Sudan - this stands a testimony to all our accomplishments.

## HISTORY of DUBAI PHARMACY COLLEGE

The year 2013 is a proud moment in the history of Dubai Pharmacy College for Girls(DPCG) as the Masters Program got initial accreditation from the *Ministry of Higher Education and Scientific Research*, UAE;for two specializations:

- Clinical Pharmacy
- Pharmaceutical Product Development

The beginning of a long journey to excellence and continued development was set forth by the astute visionary **Haj Saeed Lootah** by establishing DPCG in 1992 -to meet the growing needs of healthcare.

In 1992, to generate competent pharmacists, under the supervision of Dr. Mirza Umair Beg (Founder Dean) and Prof. Dr. Saeed Ahmad Khan, the first 27 students were enrolled. In 1995, a tie-up with the *Abu Dhabi Health Services Company (SEHA)* and *Dubai Health Authority (DHA)* gave our student the opportunity to participate in Professional Practice Experience in hospitals. Other venture with the big players among pharmaceutical companies, the Gulf Pharmaceutical Industries' *Julphar* and the *Global Pharma* offers fourth year students proper *Professional Practice Experience* to enhance their industrial orientations.

A model pharmacy, using the latest IT facilities, was setup to inspire our student to become proficient pharmacists. This resulted in an improved curriculum and better training for our students. In 1998, DPCG received accreditation from the Ministry (MOHE&SR).The decree authorized the College to award its graduates an accredited degree of BPharm. In 2004, Dubai Pharmacy College for Girlsreceived the *Dubai Quality Appreciation Award*, a testament to its excellence.

The open lecture series '*Pharmatalk- Share and Inspire*', initiated in 2007, provides a platform for sharing best practices. In 2011, *DPCG Newsletter*, a monthly publication, was initiated with the aim of sharing experience and information covering news, events, faculty achievements and creative talents of students.

We all know that the content of education is acquired in two phases before and after graduation. Most importantly, continued education and professional development is one of the requirements of modern health care practice and an urgent need to stay connected with scientific developments. Hence, the *Community Engagement Unit* organizes *Continuing Medical Education (CME)* approved by the Ministry of Health, U.A.E.

Today most of the DPCG graduates play an important role influencing the development of patient care working in multi-national pharmaceutical companies, hospitals, community pharmacies or insurance companies around the globe.





## Vision



*"To serve the healthcare community by nurturing competent and professional pharmacists while promoting a learning environment that fosters innovation, leadership, continued professional development and quality assurance, making DPCGG one of the leading institutions for the pharmacy education in the world."*

## Mission

*"DPCG is committed to provide accredited pharmacy education at undergraduate and graduate level to female students based on Islamic values, advancement of pharmaceutical knowledge through research and community service in order to serve pharmacy profession, scientific community and public."*

## Accreditation and Licensure

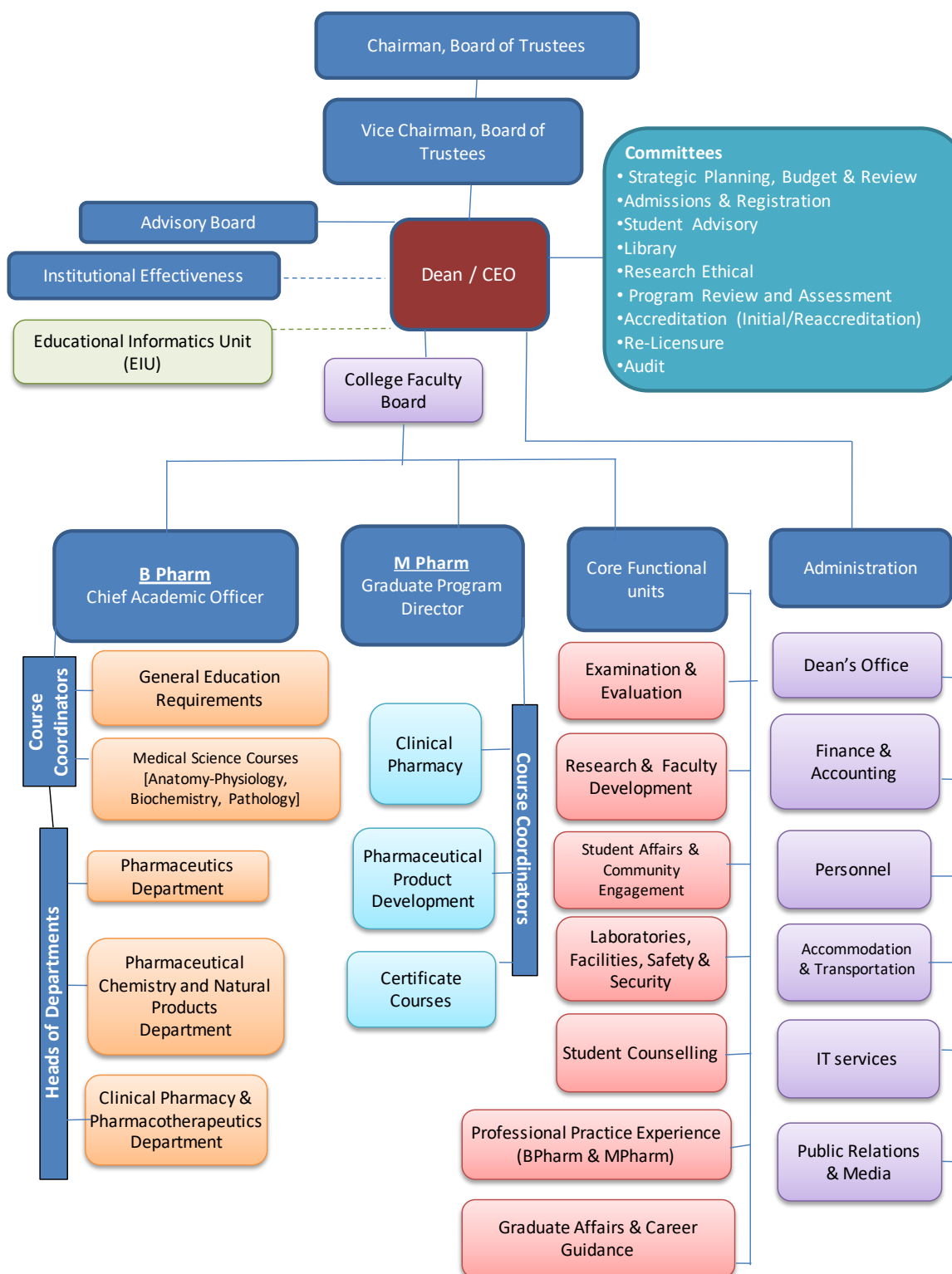
Dubai Pharmacy College for Girls offers the following degrees:

- I. Bachelor of Pharmacy
- II. Master of Pharmacy\* with specialization in
  -  Clinical Pharmacy
  -  Pharmaceutical Product Development

All the programs are accredited by the Commission for Academic Accreditation (CAA), Ministry of Education – Higher Education Affairs, UAE.

*\*Initial Accreditation awarded for the Masters of Pharmacy program*

## DPCG Organizational Structure





## 1. Program

<b>INSTITUTION:</b>	<b>Dubai Pharmacy College for Girls, Dubai, UAE</b>
<b>DEGREE:</b>	<b>Bachelor of Pharmacy</b>
<b>LENGTH &amp; MODE:</b>	<b>Four academic years, Full time</b>
<b>ACADEMIC PERIOD:</b>	<b>First of September to End of July</b>
<b>MINIMUM REGISTRATION PERIOD:</b>	<b>4 years</b>
<b>MAXIMUM REGISTRATION PERIOD:</b>	<b>6 years</b>
<b>Chief Academic Officer:</b>	<b>Prof. Naglaa Gamil Shehab</b>

## 2. Admission Requirements

To enroll in DPCG undergraduate degree program you will need to meet the minimum academic and English language requirements as outlined below:

<b>Academic Requirements:</b>	<p><b>Applicants from a high school following the U.A.E. curriculum must have:</b></p> <ul style="list-style-type: none"> <li>♦ The UAE High School Certificate – Science Stream (or equivalent) is required with an average score of 80% or more.</li> </ul> <p><b>If you come from a high school following an International curriculum must have</b></p> <ul style="list-style-type: none"> <li>• 12 years of school in Science Stream (or equivalent) with a minimum 80% or more.</li> <li>• Equivalency certificate for a High School Certificate obtained abroad from UAE Ministry of Education.</li> </ul> <p><b>Additional Requirements:</b></p> <ul style="list-style-type: none"> <li>• Students of <b>GCSE/IGCSE curriculum</b> must have completed five subjects (Biology or Human Biology, Chemistry, English Language, Mathematics or additional Mathematics or Statistics, and Physics) at the ordinary level with at least 2 B's and 3 C's grades, plus two subjects (Biology and Chemistry) at the GCE Advanced Subsidiary or Advanced level with at least 1 B and 1 C grade.</li> <li>• Students of <b>International Baccalaureate Diploma</b> must have completed six subjects with three at the standard level and three at the higher level with minimum 30 diploma points (equivalent grade of 80%) fulfilling following mandatory courses requirement: <ul style="list-style-type: none"> <li>– Standard or Higher level Math</li> <li>– Standard or Higher level Biology</li> <li>– Standard or Higher level Chemistry</li> </ul> </li> </ul>
<b>English Proficiency Requirements</b>	<p>All students are required to provide a certificate of English proficiency, such as</p> <ul style="list-style-type: none"> <li>– Internet Based Test (IBT) TOEFL 61 out of 120. <i>TOEFL (PBT) will not be accepted.</i></li> <li>– International English Language Testing System (IELTS-Academic) 5.0</li> <li>– Cambridge English: Advanced (CAE) with a test score of 41</li> <li>– Pearson Test of English Academic (PTEA) score range of 36-46</li> <li>– City &amp; Guilds IESOL Test score of B1 First Class pass</li> <li>– The Emirates Standardized Test (EmSAT) with a test score range 1100 – 1225</li> </ul> <p><b>Exceptions are:</b></p> <p>Any native speaker of English that has completed her secondary education in an English medium institution in any country where English is an official language.</p>

Applications are initially reviewed by the college and applicant will be called for an interview. Final decisions rest with the college, which, after considering the recommendation of the department concerned, will notify the applicant of the decision.

Candidates should submit certificate in proof of having good character and provide evidence for their emotional, social and academic maturity from the Head of the Institution last attended.

### DPCG Conditional Admission

Students who qualify for conditional admission will have to sign a note of undertaking of conditional admission that specifies the conditions that she must meet the minimum English Language Proficiency within a month from the date of joining. In case of not achieving the required score she will be turned out of the College.

**Note:** Conditional admission means that students are limited to enrolling in 15 credit hours for the first semester and cannot continue without the required minimum score as set by the *Ministry of Higher Education and Scientific Research, UAE*.

### TRANSFER ADMISSION POLICIES

The College also welcomes applications from candidates studying with other educational institutions in B.Pharm. course who wish to transfer to DPCG. It may be possible to grant exemption from earlier part of the degree course in recognition of a candidate's success in her previous course of study.

The following are the necessary conditions for transfer to the DPCG from other Pharmacy Colleges:

1. Dubai Pharmacy College for Girls(DPCG) accepts transfer of students from accredited College with a curriculum that is comparable to that offered at DPCG.
2. Students must meet the English language proficiency requirements such as minimum TOEFL score of (61 IBT) or 5.0 in IELTS.
3. The student must provide a letter of application to the Dean of the College specifying reason (s) for requesting transfer and desired date of transfer.
4. Dubai Pharmacy College for Girlsrequires applicants to submit their transcripts for evaluation of transferable subjects /teaching hours from previous College experiences.
5. No student who has been dismissed from any Pharmacy College will be eligible for transfer to DPCG.
6. All applicants must provide conduct certificates from the Pharmacy College where they are currently enrolled.
7. All applicants should contact the **Dean's Office** to inquire about having their transcripts reviewed.
8. **The student transferring from another accredited college must be in a good academic standing (a minimum CGPA of 2.0, C grade, on a 4.0 scale or equivalent).**
9. **Student applying for transfer to DPCG must study more than 60% of the syllabus of B. Pharm at DPCG.**
10. The final decision for approval of transfer will be made by the Dean after review of the transfer request by the Chief Academic Officer of the College.
11. Transfer of students is not allowed after second year.
12. Before considering any application for transfer, existence of an appropriate seat for the student should be considered.
13. Before attending Dubai Pharmacy College, attested records from the previous College and higher secondary school should be submitted to the Dean's secretary.

**ADMISSION RULES FOR DIPLOMA IN PHARMACY & SCIENCE GRADUATES Diploma in Pharmacy holders will be admitted in second year of B.Pharm, if they meet the following requirements:**

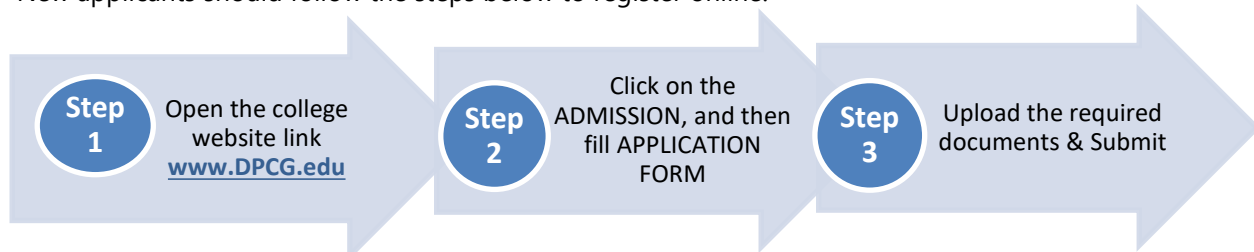
- 1) She should have passed the qualifying examination viz. Higher Secondary/Intermediate/10+2/GCE-A level "12 Grade" or equivalent with science subjects (Physics, Chemistry, Biology or Mathematics) from a school recognized by Ministry of Education, U.A.E. with not less than 70% marks in aggregate.
- 2) She should have passed Diploma in Pharmacy **with a good academic standing (a minimum CGPA of 2.0, C grade, on a 4.0 scale or equivalent).**
- 3) She should apply for admission to BPharm course in DPCG within five years after obtaining the Diploma in Pharmacy and also she should be working in the field related to Pharmacy.
- 4) Candidates should submit certificate in proof of having a good character and provide evidence for their emotional, social and academic maturity from the Head of the Institution last attended.
- 5) Evidence of proficiency in English language should also be provided.

Science graduates and graduates in Medicine, Health Sciences, Dentistry and Veterinary Sciences can also be admitted to B. Pharm. **course if they meet the following requirements:**

- 1) She should have passed the qualifying examination viz. Higher Secondary/Intermediate/10+2/GCE-A level "12 Grade" or equivalent with science subjects (Physics, Chemistry, Biology or Mathematics) from a school recognized by Ministry of Education, U.A.E. with not less than 70% marks in aggregate.
- 2) She should have passed Graduate Degree with **a good academic standing (a minimum CGPA of 2.0, C grade, on a 4.0 scale or equivalent).**
- 3) She should apply for admission in B. Pharm. course in DPCG within five years after obtaining her Graduate Degree and also she should be working in the field related to her specialization.
- 4) Candidates should submit certificate in proof of having a good character and provide evidence for their emotional, social and academic maturity from the Head of the Institution last attended.
- 5) Evidence of proficiency in English language should also be provided.

**Online Registration:**

New applicants should follow the steps below to register online:



New applicants will be shortlisted and contacted. If you have any questions regarding the system, or should you encounter problems while using the system, call the college reception during office hours.



### Registration Procedure:

Registration must be completed by the end of the July of each year. Authority to extend this deadline is vested on the Dean.

The applicant should fill the online application form and attach the required documents with 300/- AED and then submit it to Dean's office.

### DOCUMENTS required for admission

The following documents will be required to be submitted along with the application form. The original certificates should be brought in person by the applicant at the time of interview.

1. Provisional certificate of the examination passed (Higher Secondary) on the basis of which admission is sought.
2. Mark-sheet of the examination passed.\*
3. Leaving certificate from the school last attended.
4. Six passport size color photographs.
5. Birth certificate.
6. Character certificate from the Head of the Institution last attended.
7. Copy of the passport and resident visa (for expatriate students only).
8. Medical certificate.
9. Document certifying TOEFL/IELTS requirements.

**\*Note: School certificates from outside UAE should be attested from place of issue:**

#### a) Country of Study

- Ministry of Education
- Ministry of Foreign Affairs
- The Embassy

#### b) UAE

- Equivalency certificate from Ministry of Education

### 3. Student Intake and Fee Structure

**STUDENT INTAKE:** Student intake will be limited to 70 students not exceeding 80 students in total.

Fees	Total Amount/Year	Mode of Payment
<b>Tuition*</b>	Dhs45,000 (+5% VAT applicable) Dhs1100/credit hour	Dhs22,500/- at time of admission Four installments
<b>Hostel</b>	Dhs12000/- to 18000/-	Four installments with tuition fees.
<b>Transportation (+5% VAT applicable)</b>		
Dubai(daily)	Muhaisnah/Mezher/Mirdiff/Rashidiya/Twar/Qu sais/Nahda Dhs3000/- Deira/Bur Dubai/Satwa/Karama/Umm Suqaim/Jumeirah/Barsha Dhs4000/-	Four installments with tuition fees.
Sharjah/Ajman(daily)	Dhs 5000/-	
AbuDhabi, Fujairah, Al Ain, Baniyaas (weekly)	Dhs 5000/-	Four installments with tuition fees.

**\*NOTE:**

**The tuition fees once communicated will remain the same throughout the course for the four year of study.**

**Transport and Hostel fees are subject to change.**

### FinancialAid

Dubai Pharmacy College for Girlsas part of the Board of Trustees keen desire to attract outstanding girls students to the Dubai Pharmacy College, it is hereby decided as follows:

The College awards four scholarships to meritorious students each year who are newly admitted (equivalent to the tuition fee of the 1<sup>st</sup> year)

- One student is awarded 50% scholarship
- One student is awarded 40% scholarship
- Two students are awarded 20% scholarship each

This scholarship remains with the students all four years if they maintain their merit in each academic year results. If they do not maintain good academic standing then other students with good grades are awarded the scholarship.

**Grant of the above mentioned concession shall be subject to the following:**

1. Fulfillment of other conditions mentioned in the prevailing rules and regulations.
2. Faithfully adhering to the Islamic educational codes and principles and other rules and regulations in force in the College.
3. The College shall not be bound to continue the concession so granted in case of the students transfer to another College, or any change in her educational progress.
4. Consistently obtaining not less than Excellent (grade) at all levels of studies.



5. Priority for award of the concession shall be given to the candidate scoring the highest marks in the admission to the College.

### Refund Policy of Tuition Fees

Dubai Pharmacy College for Girls admits only a very limited number of students, so if any student after admission cancels her admission then this will create a vacancy which could have been used by another qualified student. Therefore the College authorities are strict in their action for such students and they will not refund the fees paid at the time of admission until and unless a valid reason is provided for cancellation of admission.

The valid reasons can be:-

1. If a candidate faces visa difficulties from U.A.E. govt. that are out of College Control.
2. If the guardian of the candidate faces sudden employment problems, such as termination, visa cancellation etc.
3. If a candidate is granted a scholarship provided that it occurs after the date of fee payment.

The refund usually is granted to student in first or second week after commencement of academic year to which they are admitted.

Refund requests should be made at the Registration office through a written request enclosing the ID card and original fee receipt. Refunds will be made after clearance of dues, if any. The amount paid is construed as your booking the seat for yourself in the college. The refund policy applicable is as follows:

In the case of withdrawal before joining the college	5% (applicable only on tuition fees )
For every month of attendance in case of withdrawal after joining the college :	
Bachelor of Pharmacy	AED 4500
Master of Pharmacy	AED 5000

### Add/Drop/Withdrawal from Courses

Credit transfer system is not applicable for regular students as DPCG strictly adheres to the time-table schedule, the students cannot add or drop any regular courses allotted for each semester.

### Withdrawal Policy

If withdrawal is required by a student in good standing, a written petition for withdrawal is made and approved by the Chief Academic Officer/ Graduate Program Director. Good standing designates any student not subject to probation or disqualification.

### Leave of Absence:

Students in good standing may request a Leave of Absence. A leave of absence allows a student to return to the same semester at any registration period for up to one year from the start of the leave without the necessity of re-applying but should fill in the Leave of Absence form. Students on scholarship who are in good academic standing will retain their award when returning to the College from a leave of absence not more than one year.

Students returning from a Leave of Absence will need to fill out a readmission form available in the Dean's office.

### Returning Student Readmission Policy:

- **If returning to first semester:** Readmission form must be submitted on or before the start of the term.
- **If returning to second semester:** Readmission form must be submitted on or before the first week of second semester of the same year.

Students returning from a **Leave of Absence** who have a tuition balance are subject to the rules regarding overdue tuition balances in place at that time. After one year, students will have to re-apply for admission and if applicable, for scholarship.

Students' Leave of Absence that exceed one calendar year from date of request will have their status changed to "Withdrawal."



## 4. Prospective Careers

Various avenues open to pharmacists in different areas of activity are as follows:

### 1) Community Pharmacy (Retail Pharmacy)

- Dispensing of prescriptions after review
- Selection of non-prescription drugs
- Pharmaceutical care of certain diseases
- Purchasing, storing and dealing of pharmaceutical products

### 2) Hospital Pharmacy (Clinical Pharmacy – Pharmaceutical Care)

- Dispensing of prescriptions after review
- Answering queries through Drug Information Center
- Therapeutic Drug Monitoring
- Dealing with intravenous admixtures
- Pharmaceutical Care (prevents drug interactions and adverse drug reactions, proper use of drug products, ensure compliance, discover and solve adverse drug reactions)
- Production of certain radioactive drug products
- Administration, purchasing and participating in selection of drugs

### 3) Pharmaceutical Industry

- Synthesis and analysis of raw materials
- Extraction of active ingredients from medicinal herbs, and other natural products
- Production of pharmaceutical products
- Quality Control of pharmaceutical products
- Research and Development
- Marketing and promotion of drugs/Distribution of pharmaceutical products

### 4) Government Organizations (MOH & DHA)

- Control and auditing of community hospital pharmacies
- Drug Registration and Control
- Defense and Interior Ministry pharmacies
- ADR monitoring

### 5) Research and Development Centres

- Research on drugs in various research centers
- Research on medicinal herbs, natural products, biotechnology and genetic engineering
- Research on other areas of pharmaceutical sciences

### 6) Universities and Colleges

- Work as Demonstrators/Teaching Assistants
- Seek higher education to obtain Diploma, Masters and Ph. D. degree

### 7) Other Careers

- Medicinal Diagnostic Laboratories
- Pharmaceutical Consultation
- Marketing for Drug Products
- Nuclear Pharmacy and Forensic Pharmacy
- Insurance companies

5. A. General Education Program	
<p align="center"><b>PROGRAM OBJECTIVE</b></p> <p>General Education program builds on a foundation that prepares lifelong learners who will be engaged citizens in a complex and dynamic world in which they will live and work.</p>	
PROGRAM OUTCOMES	
<b>Quantitative reasoning</b>	Apply mathematical and statistical reasoning to discipline specific problems and decision making
<b>Communication skills</b>	Interchange ideas and information effectively through writing, speech, and visual and digital media
<b>Ethical reasoning</b>	Assess and weigh moral beliefs and practices, and their applications to ethical dilemmas
<b>Technology and Information literacy</b>	Locate, evaluate, cite, and effectively using information
<b>Diverse perspectives and experiences</b>	Acquire knowledge and analytical skills to understand a variety of perspectives and experiences.
<b>Critical Inquiry</b>	Systematic questioning and analysis of problems, issues, and claims
<b>Wellness literacy</b>	Acquire knowledge in science-based health fitness and aesthetic concepts.

## B. BPharm Program

### PROGRAM OBJECTIVES

1. Offer a highly motivated educational environment to provide the students with profound knowledge of various fundamental, pharmaceutical and clinical sciences.
2. Develop the ability of the students to utilize the acquired knowledge to contribute productively in various fields of pharmaceutical and clinical settings.
3. Produce graduates with professional skills needed to ensure effective communication with health care members, patients and community following professional code of ethics.
4. Develop a highly competent, responsible, life-long learner pharmacist with the vision of continuous professional development.

### PROGRAM OUTCOMES

QF Emirates Level 7	Program outcome: On successful completion of this program the students will be able to:	Learning/ Teaching Methods and Strategies	Types/ Methods of assessment
<b>Knowledge</b>	<b>A1.</b> Acquire knowledge and understanding of natural and synthetic drugs, drug isolation, structural design, synthesis, and chemical structural relation with pharmacological activity and toxicity, analysis of drug and pharmaceutical products by qualitative and quantitative methods.	Lectures, Tutorials, Practical, Self-Directed Learning, Seminars, Problem Based Learning	Written Examinations, Practical Reports, Project Report, PBL assessment
	<b>A2.</b> Acquire knowledge of the basic concepts and techniques involved in manufacturing and quality assurance of different pharmaceutical and biotechnology based products considering physicochemical, biopharmaceutical and pharmacokinetics aspects.		
	<b>A3.</b> Gain the comprehensive knowledge of biomedical, pharmacokinetics, pharmacodynamics & toxicological principles of medications appropriate to apply in clinical settings.		
	<b>A4.</b> Understand various concepts, policies and procedures related to pharmacy practice in different clinical settings including hospital and community.		
<b>Skills</b>	<b>B1.</b> Acquire the basic skills and techniques involved in drug manufacture and development, drug design and screening, quality control and analysis of pharmaceutical products.	Practical classes, Project Work, Workshops, Problem Based Learning, Case studies, Computer Lab	Oral, poster presentation, Seminars, OSCEs, practical, Case based assessment, Project Report & Students Graduation
	<b>B2.</b> Communicate effectively orally and in writing and deploy a range of presentation techniques within workplace setting.		
	<b>B3.</b> Interpret prescription orders, integrate the knowledge of biostatistics and clinical calculations in identifying problems with drug therapy, formulate solutions and assess risk		



	associated with the solutions to deliver the best pharmaceutical care to the patients.		research Project
<b>Competencies</b>	C1.Demonstrate the leadership ability and take responsibilities to function both independently and as a member of a team.	Problem Based Learning, Prescription evaluation, Workshops, E-learning, Communication skills classes, Self-Directed Learning	PPE, OSCEs, Written examinations, Calculations in Practice and PBL assessments  Students research Graduation Project
	C2. Develop self-learning skills, problem solving skills and critical thinking abilities for professional development and become independent life- long learner.		
	C3. Display Islamic behavior, moral and ethical attitudes to practice the profession competently and ethically.		

### BPharm Program Objectives mapping against Program Outcomes

Program objectives	Program outcomes									
	Knowledge				Skills			Competencies		
	A1	A2	A3	A4	B1	B2	B3	C	C	C3
1. Offer a highly motivated educational environment to provide the students with profound knowledge of various fundamental, pharmaceutical and clinical sciences.	√	√	√	√						
2. Develop the ability of the students to utilize the acquired knowledge to contribute productively in various fields of pharmaceutical and clinical settings.					√		√			
3. Produce graduates with professional skills needed to ensure effective communication with health care members, patients and community following professional code of ethics.						√				
4. Develop a highly competent, responsible, life-long learner pharmacist with the vision of continuous professional development.								√	√	√

## 6. Study Plan for the BPharm Program

Dubai Pharmacy College for Girls accepts only female students with General Secondary School Certificate or its equivalent with science subjects (Physics, Chemistry, Biology, or Mathematics) for admission to Bachelor of Pharmacy degree program. The BPharm curriculum requires a minimum of 170 hours

Dubai Pharmacy College for Girls grants its students, after successful completion, Bachelor's Degree in Pharmacy (B. Pharm.). The total program of Dubai Pharmacy College for Girls extends over four academic years and the maximum course duration to complete the degree within a reasonable time frame of six years. The academic year starts in September and ends in the third week of July.

- Each academic year is divided into semesters.
- Each semester is composed of twenty two weeks of which 15 weeks devoted to teaching
- Each week has five teaching days which accounts for 30 teaching hours in a week.

	No. of Courses	Credit Hours	%
Elective Courses	3	6	3.5%
General Education Courses	6.5	14	8.3%
Core requirement	42.5	130	76.4%
Professional Practice Experience(PPE)	3	14	8.3%
Students Graduation Project (GP)	1	6	3.5%
Total	56	170	100%

Domain	No. courses	Credit Hours	%
PS-Pharmaceutical Science	15	54	41.5 %
CS-Clinical Science	12.5	27	20.8 %
PS-Pharmaceutical Science/ CS-Clinical Science	4	17	13.1%
BBS-Basic Biomedical Sciences	8	22	16.9%
BS-Basic Sciences	3	10	7.7%
Total	42.5	130	100%



**Batch 25: 2016-2017**

<b>FIRST YEAR</b>							
<b>First Semester</b>							
<b>Code</b>	<b>Domain</b>	<b>Courses</b>	<b>Prerequisite</b>	<b>Corequisite</b>	<b>Lecture</b>	<b>Practical</b>	<b>Total Units</b>
PN701	BS	Organic Chemistry- I	-	-	3	-	3
MC701	BBS	Anatomy and Physiology I	-	-	3	1	4
MC702	BBS	Medical and Pharmaceutical Terminology	-	-	1	-	1
GE701	GE	Mathematics and Statistics	-	-	3	-	3
GE702	GE	English Language Skills	-	-	2	-	2
GE703	GE	General Psychology	-	-	2	-	2
GE704	GE	Islamic Studies	-	-	2	-	2
GE705	GE	History of Pharmacy	-	-	2	-	2
<b>TOTAL</b>			-	-	<b>18</b>	<b>1</b>	<b>19</b>

<b>Second Semester</b>							
<b>Code</b>	<b>Domain</b>	<b>Courses</b>	<b>Prerequisite</b>	<b>Corequisite</b>	<b>Lecture</b>	<b>Practical</b>	<b>Total Units</b>
CP701	CS	Orientation to Pharmacy	-	-	1	-	1
PN702	BS	Organic Chemistry- II	PN701	-	3	1	4
PN703	PS	Natural Products-I (Pharmabotany)	-	-	3	1	4
PN704	BS	Analytical Chemistry	-	-	2	1	3
PC701	PS	Pharmaceutical Calculations	GE701	-	2	-	2
MC703	BBS	Anatomy and Physiology-II	MC701	-	3	1	4
GE706	GE	Computer Applications & Informatics	-	-	1	1	2
<b>TOTAL</b>			-	-	<b>15</b>	<b>5</b>	<b>20</b>



## 2017-2018

SECOND YEAR							
Third Semester							
Code	Domain	Courses	Prerequisite	Corequisite	Lecture	Practical	Total Units
PN705	PS	Pharmaceutical & Medicinal Chemistry –I	PN702	-	4	-	4
PN706	PS	Natural Products-II (Pharmacognosy and Quality Control)	PN703	-	3	-	3
MC704	BBS	Biochemistry-I	-	-	2	1	3
PC702	PS	Physical Pharmacy	PC701	-	3	1	4
PC703	PS	Pharmaceutics- I		PC702	2	1	3
PC704	PS	Microbiology	-	-	3	1	4
TOTAL			-	-	17	4	21
Fourth Semester							
Code	Domain	Courses	Prerequisite	Corequisite	Lecture	Practical	Total Units
PN707	PS	Pharmaceutical & Medicinal Chemistry –II	PN705	-	3	1	4
PT701	PS/CS	Pharmacology and Therapeutics- I	MC701, MC703	-	4	1	5
MC705	BBS	Pathology	MC703	-	2	1	3
MC706	BBS	Biochemistry –II	MC704	-	2	1	3
MC707	BBS	Basic Genetic	PC704	-	2	-	2
PC705	PS	Pharmaceutics-II	PC701/PC703	-	2	1	3
TOTAL			-	-	15	5	20

## 2018-2019

THIRD YEAR							
Fifth Semester							
Code	Domain	Courses	Prerequisite	Corequisite	Lecture	Practical	Total Units
PN708	PS	Phytochemistry	PN706	PN710	3	1	4
PN709	PS	Pharmaceutical & Medicinal Chemistry-III	PN707	-	3	-	3
PN710	PS	Pharmaceutical Analysis	PN704	PN709	3	1	4
PT702	PS/CS	Pharmacology and Therapeutics- II	PT701 MC706	-	3	1	4
PC706	PS	Biopharmaceutics and Pharmacokinetics	PC702/PC703/PC705	-	3	1	4
MC708	BBS	Immunology	MC705	-	2	-	2
TOTAL			-	-	17	4	21
Professional Practice Experience							
Code	Domain	Professional Practice Experience	No of Hours		No of Credit Hours		
PPE01	CS	Introductory Professional Practice Experience	200		-		



Sixth Semester							
Code	Domain	Courses	Prerequisite	Corequisite	Lecture	Practical	Total Units
PT703	PS/CS	Pharmacology and Therapeutics- III	PT701 MC706	-	3	1	4
PC707	PS	Pharmaceutical Technology	PC703/ PC705	-	3	1	4
CP702	CS	Applied Pharmacokinetics	PC706	-	2	0	2
CP703	CS	Pharmacy Practice	PT701, PT702	PT703	3	1	4
PC708	PS	Pharmaceutical Biotechnology	PC704, MC705, MC708	-	3	-	3
EC701	EC	Elective Area I	-	-	2	-	2
<b>TOTAL</b>					<b>16</b>	<b>3</b>	<b>19</b>

## 2019-2020

FOURTH YEAR							
Seventh Semester							
Code	Domain	Courses	Prerequisite	Corequisite	Lecture	Practical	Total Units
PT704	PS/CS	Pharmacology and Therapeutics- IV	PT703 PC704	-	3	1	4
CP704	CS	Clinical Pharmacy and Pharmaceutical Care	PT701, PT702, PT703	PT704	3	1	4
CP705	CS	Professional Skills in Practice	CP702	-	2	2	4
GE707	GE	Research Methodology & Biostatistics	GE701/ GE702	-	2	-	2
CP706	CS	Pharmacy Laws and Drug Regulations	CP702		1	-	1
EC702	EC	Elective Area II	-	-	2	-	2
<b>TOTAL</b>					<b>13</b>	<b>4</b>	<b>17</b>

Professional Practice Experience							
Code	Doma in	Professional Practice Experience	No of Hours	No of Credit Hours			
PPE02	PS	Industrial Professional Practice Experience	100	0			
Eighth Semester							
Code	Doma in	Courses	Prerequisite	Corequis ite	Lectu re	Practic al	Total Units
CP707	CS	Hospital Pharmacy	CP702	-	2	-	2
CP708	CS	Pharmaceutical Management	PPE01	-	2	-	2
CP709	CS	Pharmacoepidemiology & Pharmacovigilance	GE 705, CP704	-	2	-	2
CP710	CS	Calculations in Practice	PC701, PC703, PC706, CP703		0	-	0
CP711	CS	Clinical Toxicology	MC707, PT703	-	2	-	2





CP71 2	CS	Pharmacogenomics	PT703, MC708	-	2	-	2
CP71 3	CS	Integrated Problem Based Learning	PC704, MC707 PT703, PT704, CP703, CP704	-	1	-	1
EC70 3	EC	Elective Area III	-	-	2	-	2
GP70 1	GP	Students Graduation Project	GE705	-	-	6	6
<b>TOTAL</b>			-	-	<b>13</b>	<b>6</b>	<b>19</b>
<b>Professional Practice Experience</b>							
<b>Code</b>	<b>Domain</b>	<b>Professional Practice Experience</b>	<b>No of Hours</b>	<b>No of Credit Hours</b>			
PPE0 3	CS	Advanced Professional Practice Experience	700	14			



## 7. Courses of Study in the BPharm program

General Education (GE)	14	Pharmaceutical Sciences (PS)	54
Mathematics and Statistics	3	Physical Pharmacy	4
English Language and Study Skills	2	Natural Products-I	4
Islamic study	2	Pharmaceutics I	3
Research Methodology	1	Pharmaceutical & Medicinal Chemistry -I	4
History of Pharmacy	2		
General Psychology	2	Pharmaceutical & Medicinal Chemistry -II	4
Computer Applications	2		
<b>Basic Science (BS)</b>	<b>10</b>	Natural Products-II	3
Organic Chemistry- I	3	Phytochemistry	4
Organic Chemistry- II	4	Pharmaceutics-II	3
Analytical Chemistry	3	Microbiology	4
<b>Basic Biomedical Sciences (BBS)</b>	<b>22</b>	Pharmaceutics-III	3
Anatomy and Physiology I	4	Pharmaceutical & Medicinal Chemistry-III	3
Anatomy and Physiology II	4	Biopharmaceutics and Pharmacokinetics	4
Medical Terminology	1	Pharmaceutical Analysis	4
Biochemistry I	3	Pharmaceutical Biotechnology	3
Pathology	3	Pharmaceutical Technology	4
Biochemistry II	3		
Immunology	2		
Basic Genetics	2	<b>Clinical Sciences (CS)</b>	<b>27</b>
<b>Pharmaceutical Sciences / Clinical Sciences (PS/CS)</b>	<b>17</b>		
Pharmacology and Therapeutics- I	5		
Pharmacology and Therapeutics- II	4	Applied Pharmacokinetics	2
Pharmacology and Therapeutics- III	4	Pharmacy Practice	4
Pharmacology and Therapeutics- IV	4	Pharmaceutical Management	2
<b>Electives (EC)*</b>	<b>6</b>	Hospital Pharmacy	2
Elective (choose from Area-I)	2	Professional Skills in Practice	4
Elective (choose from Area-II)	2	Clinical Pharmacy and Pharmaceutical Care	4
Elective (choose from Area-III)	2	Pharmacogenomics	2
<b>Professional Practice Experience (PPE)</b>	<b>14</b>	Clinical Toxicology	2
Introductory Professional Practice Experience (PPE-I)	0	Pharmacoepidemiology & Pharmacovigilance	2
Industrial Professional Practice Experience (PPE-II)	0	Pharmacy Laws and Drug Regulations	1
Advanced Professional Practice Experience (PPE-III)	14	Integrated Problem Based Learning	1
<b>Students Graduation Project (GP)</b>	<b>6</b>	Calculations in Practice	0
Students Graduation Project (GP)	6	Biostatistics	1



BPHARM STUDY PLAN		
Year	Sem	Credits
1st Year	Sem 1	19
	Sem 2	20
2nd Year	Sem 3	21
	Sem 4	20
3rd Year	Sem 5	21
	Sem 6	19
4th Year	Sem 7	17
	Sem 8	19
<b>TOTAL</b>		<b>156</b>
PPE03		14
<b>TOTAL PROGRAM CREDITS</b>		<b>170</b>

*List of Elective Courses		
<b>EC711</b>	Islamic Culture & Science	<b>Area-I</b>
<b>EC712</b>	Organizational Behavior and Cultural Diversity	
<b>EC713</b>	Basic Aspects of Social Sciences	
<b>EC714</b>	Entrepreneurship & Innovation	
<b>EC721</b>	Nutrition and Health	<b>Area-II</b>
<b>EC722</b>	Alternative and Complimentary Medicine	
<b>EC723</b>	Fundamental of Cosmetic Science	
<b>EC731</b>	Nuclear Pharmacy	<b>Area-III</b>
<b>EC732</b>	Bioassay	
<b>EC733</b>	Pharmaceutical GMP	





<b>Organic Chemistry-I</b>	<b>Credit Hours: 3+0</b>
This course describes the basics of organic chemistry as atomic structure, orbital theory, hybridization, bond characteristics and chemical bonding. This course also describes the role of electronegativity on the polarity of chemical bonding, resonance effect, isomerism, and nomenclature of organic compounds.	
<b>Anatomy and Physiology-I</b>	<b>Credit Hours: 3+1</b>
The course offers a comprehensive knowledge of the structure and function of the human cell, integumentary, skeletal, muscular and nervous systems. The information offered by the course forms the foundations for further understanding of pharmacology, pathology, pathophysiology, and medicine. It gives the student an opportunity to develop into an independent learner and researcher.	
<b>General Psychology</b>	<b>Credit Hours: 2+0</b>
The aim of this course is to provide the students with the knowledge of the basic fundamentals in Psychology. The content of each session is driven by a set of student-centered learning objectives and targeted feedback.	
<b>History of Pharmacy</b>	<b>Credit Hours: 2+0</b>
This course aims to introduce students to the roots and historical development of pharmacy and the important contributions of the ancient people and cultures to the evolution of the profession. Moreover, an important aspect of this course will be discussions concerning the development of critical therapeutic agents that revolutionized the treatment of diseases and how these discoveries affected the pharmacy profession. The student will also be exposed to developmental stages of pharmacy education worldwide and discuss the important factors and events that shaped the profession of pharmacy in Gulf countries particularly in the UAE.	
<b>English Language Skills</b>	<b>Credit Hours: 2+0</b>
This course is designed to enable the students to achieve oral and written communication skills. The course integrates the language skills with emphasis on writing, and it stimulates students' imagination, and promotes self-expression. Students in this course are trained to apply critical thinking skills to a wide range of challenging subjects from diverse range of topics focusing on healthcare related issues. Course activities include writing various types of academic genre, acquiring vocabulary, and getting involved in group discussions and debates. The course is taught paying attention to small groups. Students, in this course, are assessed by using diverse tools, such as presentations, assignments and exams.	
<b>Medical and Pharmaceutical Terminology</b>	<b>Credit Hours: 1+0</b>
Medical terminology is the study of the principles of medical word building to help the student develop the extensive medical vocabulary used in health care occupations. Students receive a thorough grounding in basic medical terminology through a study of root words, prefixes and suffixes. The study focuses on correct pronunciation, spelling, abbreviations and use of medical terms.	



<b>Mathematics and Statistics</b>	<b>Credit Hours: 3+0</b>
The course will introduce basic mathematical concepts and calculations which are required for the subsequent studies of pharmaceutical and clinical calculations.	
<b>Islamic Studies</b>	<b>Credit Hours: 2+0</b>
The aim of this Islamic studies course is to give the students a comprehensive understanding of the main two sources of Islamic Legislation: Holy Qur'an and sunnah (prophet Mohamed Hadith). This course deals with definition of the Holy Qur'an with an explanation of selected Qur'anic verses, the definition of Sunnah with an explanation of selected Prophet's sayings (Hadith), study sections of the biography of the prophet (PBUH), and the definition of schools of jurisprudence and the reasons for their differences, with an indication of the most important sources and references of Islamic studies.	
<b>Organic Chemistry-II</b>	<b>Credit Hours: 3+1</b>
This course describes the structural configuration, physical properties, preparation methods, and chemical reactions/reaction mechanism of aliphatic, aromatic hydrocarbon, substituted hydrocarbons, polynuclear hydrocarbons, esters, ethers, thioethers, alcohols, carboxylic acids, aldehydes, ketones, amines, diazonium salts and heterocyclic compounds.  Laboratories include identification of functional groups of different organic molecules and preparation of few selected organic compounds.	
<b>Anatomy and Physiology-II</b>	<b>Credit Hours: 3+1</b>
The course offer a comprehensive knowledge of the structure and function of the digestive, blood, cardiovascular, respiratory, renal system, endocrine and reproductive systems. The information offered by the course forms the foundations for further understanding of pharmacology, pathology, pathophysiology, and medicine. It gives the student an opportunity to develop into an independent learner and researcher.	
<b>Natural Products-I</b>	<b>Credit Hours: 3+1</b>
Natural products is a specific discipline taught only at pharmaceutical faculties deals with the versatile studies of drugs and auxiliary substances of biological origin (plant and animal products) used in human and veterinary medicine.  The aim of this course is to provide the students information about the taxonomic classification of the medicinal plants, the part/s used and the morphological and the histological characters of the different plants organs. Also, the student should be aware with the identification of the drugs, in the whole state and in powdered condition. Suitable examples of different medicinal plants organs. Botanical origin, pharmacological uses, folkloric use, contraindication, side effects and chemical tests for each medicinal plant will be also explained to the students.	
<b>Analytical Chemistry</b>	<b>Credit Hours:2+1</b>
This course describes the classical analytical chemistry techniques. Topics covered in this course include the statistical evaluation of data, stoichiometry, gravimetric and titrimetric methods of analysis, acid-base chemistry involves in titration, complexation titration, and redox titration.  Laboratory includes practical examples of the methods covered in this course.	
<b>Pharmaceutical Calculations</b>	<b>Credit Hours: 2+0</b>



This course aims to provide students with an introductory knowledge in pharmaceutical calculations including medical prescription, systems of measurements, Roman numerals and Latin abbreviations, dose calculation according to the patient's age, body weight and body surface area, calculation of the ratio and proportion, percentage preparations, PPM and units conversion. In addition to dilution and concentration of pharmaceutical preparations, reducing and enlarging formulas, alligation of semisolids and reconstitution of powdered dosage forms.

#### **Orientation to Pharmacy**

**Credit Hours: 1+0**

This course introduces to the profession of pharmacy including its history, development, scope of practice, ethical foundations, and different pharmacy profession practice activities in different pharmaceutical fields (community, hospital, industrial, governmental & other areas). This course also prepares the students to the professional aspect of pharmacy including professional conduct, responsibility for self-development. This course also covers the importance of continuous professional development and professional development programs.

#### **Computer Applications and Informatics**

**Credit Hours: 2**

- The aim of this course is to provide the students with the ability to format and document source material in properly constructed papers, presentations, and a variety of visual formats.
- Upon completion of the course the student should have the knowledge and experience that enable them to comprehend the hospital information system including Electronic medical record and drug information system in addition to using ICT (information communication technology) in the applied fields of pharmacy.

<b>Biochemistry-I</b>	<b>Credit Hours: 2+1</b>
<p>The course provides the Pharmacy students with the knowledge to understand the basic mechanisms of life, acid base balance, structure- function relationship and clinical correlation of different biomolecules including carbohydrate, lipids, amino acids, proteins, enzymes, hemoglobin and fibrous proteins and ultimately energy production through oxidative phosphorylation reactions in mitochondrial electron transport chain.</p>	
<b>Microbiology</b>	<b>Credit Hours: 3+1</b>
<p>Microbiology is an exciting discipline with far-reaching impacts in human health and disease. This course focuses on the principles of microbiology and includes the Structure, Morphology cultural characteristics, physiology and identification of some important pathogenic bacteria, virus and fungi. Also, the student will be aware of the mechanism of action of antibiotics, drug resistance and antibiotic susceptibility testing.</p> <p>The course also discusses various issues related to Sterilization, Sterility testing, Microbial spoilage &amp; preservation of pharmaceutical products. Laboratory focuses on the Fundamental microbiological techniques.</p> <p>This course is therefore intended to provide knowledge in Microbiology and students will gain both background and experimental experience in the broad field of microbes setting foundation needed for more advanced and specialized courses.</p>	
<b>Natural Products-II (Pharmacognosy and Quality Control)</b>	<b>Credit Hours: 3+0</b>
<p>Natural Products II course provides the students information about the morphological and the histological characters of the fruits, barks, wood, marine plants and animals, their bioactive metabolites and their therapeutic uses. It also provides the students international guidelines for assessing the quality of natural products according to WHO and the scientific progress in the field of biosynthesis and tissue culture for the production of secondary metabolites of medicinal importance. It demonstrates a comprehensive knowledge and clear understanding of the different sources of natural drugs and the methods of their conservation and production.</p>	
<b>Pharmaceutical &amp; Medicinal Chemistry-I</b>	<b>Credit Hours: 4+0</b>
<p>Medicinal chemistry is the application of chemistry in the context of human medicine. This course describes the physiochemical, stereo-chemical aspects of drug action and biotransformation chemical reactions of phase I and phase II. This course also describes the chemistry and structure activity relationship of several classes of drugs that affecting cardiovascular system (cardiac glycosides, antianginal, antiarrhythmic and antilipidemic agents, anticoagulants, antiplatelets, and diuretics), cholinergic, adrenergic neurotransmission, and stimulating central nervous system. In this course student will gain knowledge about how the structure of a drug relates to its biological activity and metabolism. Students will also gain knowledge about drug designing and synthesis of different classes of medicinal agents.</p>	
<b>Pharmaceutics-I</b>	<b>Credit Hours: 2+1</b>
<p>This course is centered on imparting an understanding of the types and characteristics of conventional solid (powders, tablets &amp; capsules), liquid (suspension &amp; emulsion) and semisolids (ointment, cream, paste, gel &amp; suppositories) pharmaceutical dosage forms in details. It encompasses, definition, types, preparation, additives, vehicles, problems encounter preparation, and factors affecting stability; storage, packaging and specific quality control tests of each. This course also provides extensive practical exposure which enables the students to acquire technical, calculation, communication &amp; dispensing skills. In addition of developing professional attitudes such as team work &amp; values.</p>	





<b>Physical Pharmacy</b>	<b>Credit Hours: 3+1</b>
The course provides the basic understanding of physicochemical principles of dispersion systems (molecular, colloidal and coarse dispersions) such as pH, rheology, surface and interfacial phenomena. Furthermore chemical stability of drugs and drugs solubility, dissolution and are also discussed.	
<b>Pharmacology &amp; Therapeutics-I</b>	<b>Credit Hours: 4+1</b>
The course provides knowledge of basic principles of pharmacokinetics and pharmacodynamics of medications and their therapeutic application. An in-depth discussion of concepts of importance in pharmacology is emphasized. The principles of the autonomic nervous system and drugs acting on it are discussed. Autacoids and anti-inflammatory medications (NSAIDs & Corticosteroids) are also covered. Drugs used in respiratory disorders are also covered and management of bronchial asthma and COPD is approached from a therapeutic perspective.	
<b>Pharmaceutical &amp; Medicinal Chemistry-II</b>	<b>Credit Hours: 3+1</b>
This course describes the medicinal chemistry of centrally acting drugs that includes opiate analgesics, nonsteroidal anti-inflammatory agents analgesic-antipyretics, sedatives-hypnotics, antiepileptics, general anesthetics, psychotherapeutic drugs, antiparkinsonian and skeletal muscle relaxant. It also describes the drugs that affect neuronal transmission as local anesthetics. In this course student will gain knowledge about how the structure of a drug relates to its physicochemical properties, pharmacological activity and metabolism. Students will also gain knowledge and skills about drug designing, synthesis and analysis of different classes of medicinal agents.	
<b>Biochemistry-II</b>	<b>Credit Hours: 2+1</b>
The course provides to the pharmacy students the knowledge and advance understanding of the basic metabolic pathways of different biomolecules and related clinical correlations in addition to integration of metabolic reactions in different human tissues and different physiological and pathological conditions.	
<b>Pharmaceutics-II</b>	<b>Credit Hours: 2+1</b>
The course is designed to extend the knowledge of the design and formulation of advanced pharmaceutical dosage forms including sterile dosage forms (parenteral, ophthalmic), oral sustained and controlled-release systems, & new drug delivery systems (The course also will focus on the application of the physicochemical properties of drugs and excipients in dosage form design, drug formulation, product stability and drug delivery systems. This course also provides extensive practical exposure which enables the students to acquire skills (technical, calculation, communication) attitudes & values such as punctuality & honesty.	
<b>Pathology</b>	<b>Credit Hours: 2+1</b>
The course provides the students with the basic knowledge and conceptual understanding of the pathology of various diseases. Thus the student will be familiar with the names, classification, pathogenesis and pathological changes in the various body tissues in different diseases.	
<b>Basic Genetics</b>	<b>Credit Hours: 2+0</b>
This course is designed to provide the students with an understanding of basic concepts of genetics which includes the chromosomal basis of heredity, Nucleic acids (DNA and RNA), replication and repair mechanisms of DNA, genes, gene	



families, gene frequencies gene expression, regulation and gene mutations. Also, the students will be aware of single gene and multifactorial inheritance and the treatment of genetic diseases. This course will provide solid foundation needed to be successful in the subsequent courses within the program



<b>Pharmacology and Therapeutics-II</b>	<b>Credit Hours: 3+1</b>
<p>The course first deals with the principles of the common cardiovascular diseases describing the causes of hypertension, the major determinants which control coronary blood flow, and the most likely etiology of heart failure.</p> <p>Then, the course provides the clinical characteristics (mechanism of action, benefits, adverse effects, interactions, and contraindications) of beta blockers, diuretics, vasodilators, calcium channel blockers, nitrates, ACE inhibitors, ARBs, cardiac glycosides and antiarrhythmics.</p> <p>Finally, the therapeutic benefits of medications, the management guidelines, treatment algorithms, and patient educations of the studied disorders are fully covered. The course will be taught concurrently with Pharmaceutical and Medicinal Chemistry-II course to offer the maximum benefit of integrated knowledge.</p>	
<b>Phytochemistry</b>	<b>Credit Hours: 3+1</b>
<p>Phytochemistry course introduces the pharmacy students to the concept of the drugs derived from natural resources according to their biosynthetic origin as well to impart an understanding of natural product structures and the way they are put together in living organisms.</p> <p>The student should be aware with different methods of extraction, Isolation/identification as well as with the biological activities of the plant constituents of the acetate-malonate and shikimic acid pathways and the drugs containing these constituents. Therapeutic and toxicological activities of the secondary metabolites are also discussed in this course.</p>	
<b>Pharmaceutical Analysis</b>	<b>Credit Hours: 3+1</b>
<p>This course is an introduction to modern instrumental methods of chemical analysis. It describes the theory of operation, instrument design and methodology, and applications of spectroscopic techniques of UV/VIS, Fluorescence, FTIR, AAS, MS, and NMR, and chromatographic methods that includes gas and liquid chromatography. Laboratory includes practical examples of the methods covered in lecture.</p>	
<b>Pharmaceutical &amp; Medicinal Chemistry–III</b>	<b>Credit Hours: 3+0</b>
<p>This course describes the medicinal chemistry of antibiotic and antimicrobial agents, antifungal, antiviral and antineoplastic agents. In this course student will gain knowledge about drug discovery, design, synthesis, development and how the structure of a drug relates to its physicochemical, pharmacokinetic properties and pharmacological activity.</p>	
<b>Biopharmaceutics and Pharmacokinetics</b>	<b>Credit Hours: 3+1</b>
<p>The major focus in Biopharmaceutics will be concentrated on the various in vitro and in vivo factors that can affect drug performance in the body during the processes of liberation, absorption, distribution, metabolism, excretion with the purpose of evaluation of drug delivery systems, and the therapeutic management of patients. The pharmacokinetics section of the course provides a conceptual and quantitative background in pharmacokinetic theory and applications needed to pursue advanced studies in clinical pharmacokinetics.</p>	
<b>Pharmacology and Therapeutics-III</b>	<b>Credit Hours: 3+1</b>
<p>This course is designed to provide students with broad understanding of central nervous system pharmacology in addition to the pharmacology, pathophysiology, clinical pharmacokinetic and pharmacotherapy in major areas of endocrinology with special emphasis on the diabetes mellitus, thyroid disorders and osteoporosis. The course includes</p>	



practical classes using case-based approaches related to the topics of this course. The course will be taught concurrently with Pharmaceutical and Medicinal Chemistry to offer the maximum benefit of integrated knowledge.

#### **Pharmacology and Therapeutics-IV**

**Credit Hours: 3+1**

This course is designed to provide students with integrated knowledge of basic pharmacology of various classes of antibacterial, antiviral and antifungal agents. Focus is emphasized on main indication of each antimicrobial, its significant adverse effect and precautions to avoid drug resistance. Furthermore, the course covers the management of selected infectious diseases based on evidence-based guidelines including lower respiratory tract, urinary tract, CNS, invasive fungal infections as well as HIV.

#### **Pharmaceutical Technology**

**Credit Hours: 3+1**

This course designed to train students in various aspects of pharmaceutical industry and to provide a proper understanding in pharmaceutical pre-formulation studies, basic industrial processes (milling, mixing, drying, filtration and granulation), products packaging and good manufacturing practices in drug manufacturing. In addition, the course stresses upon the technology of some advanced pharmaceutical dosage forms including transdermal patches and microencapsulation.

#### **Pharmacy Practice**

**Credit Hours: 3+1**

This course introduces students to various aspects of pharmacy practice. It covers the knowledge of minor diseases that can be managed by the pharmacist concerning etiology, symptoms, diagnosis, treatment, management and counseling. Moreover, the student will learn the different types of over-the-counter (OTC) medications used for a variety of medical cases, such as respiratory and GIT systems, skin and dental care, ears, eyes, nose and throat (ENT) problems, as well as pain management. Further areas of learning are women's health, children's care, and smoking cessation. This course will also provide the student with professional communication skills needed to deal with patients in the hospital and community pharmacy settings during an OTC therapeutic dialogue.

#### **Pharmaceutical Biotechnology**

**Credit Hours: 3+0**

This course provides a balanced and comprehensive knowledge of the basic as well as applied aspects related to recombinant DNA technology, hybridoma technology and fermentation technology in pharmaceutical sciences, the use of hybridoma technology to produce monoclonal antibodies as potential antitumor agents, and the use of recombinant DNA technology to produce several drugs such as insulin, human growth hormone, hepatitis B vaccine, tissue plasminogen activator. Also, the student will be aware of characteristics of different types of Biotechnology Based Pharmaceuticals (Nucleic Acid Based Pharmaceuticals and Protein Based Pharmaceuticals) and delivery considerations, purification and stability of biotechnological drugs.

#### **Immunology**

**Credit Hours: 2+0**

The aim of this course is to provide the students an understanding of immune system, familiarize them the important theories of immunology and the different types of failures of immune system. Also, the students should be aware with different types of immunoglobulins and immunogens and their functions, immunohematology and immune therapy which is a rapidly evolving area that will emphasize Biotherapeutics, Immune stimulants, Immune suppressants and Monoclonal antibodies.



<b>Applied Pharmacokinetics</b>	<b>Credit Hours: 2+0</b>
The course deals with the concepts of clinical pharmacokinetics of certain drugs and calculation of doses of drugs during organ impairment and transplant clinical pharmacokinetics and therapeutic drug monitoring, drug administration, alteration of dosage form and doses based on individualization and population data, approach to therapeutic drug monitoring, case study of drugs requiring therapeutic monitoring.	
<b>Alternative and Complimentary Medicine</b>	<b>Credit Hours: 2+0</b>
Alternative and Complementary Medicines course provides the students a broad range of complementary therapies and how these can be utilized to enhance health. The students will be able to locate and evaluate credible information about complementary therapies and wellness. This course also covers the treatment of different diseases by herbal therapy, dietary health supplements, aromatherapy, relaxation therapy, minerals and vitamins supply, acupuncture, ayurvedic medicine therapy, homeopathy and hydrotherapy.	
<b>Organizational Behavioral and Innovation</b>	<b>Credit Hours: 2+0</b>
This course exposes students to behavioral science theories and applications in management. Organizational behavior is an interdisciplinary field drawing from numerous disciplines including psychology, sociology, economics, organization theory and many others. Organization behavior helps the student to learn the value-added of "soft" management interventions. Understand and articulate how culture, society, and diversity shape the role of the individual within society and human relations across cultures. In addition, the course aims to provide the students with an overview of the key concepts of strategic planning as a fundamental component of the Innovation & Entrepreneurship	
<b>Clinical Pharmacy and Pharmaceutical Care</b>	<b>Credit Hours: 3+1</b>
This course provides the knowledge and experience that enables the students to understand and describe clinical pharmacy and pharmaceutical care practice aspects. The aim of this course is to provide the students with the skills of treatment assessment, care plan developing and follow up evaluation. Also, the student will be provide with the skills of identifying different types of patients drug related needs, different types of drug related problems and taking decision with ethical considerations in the practice of clinical pharmacy.	
<b>Hospital Pharmacy</b>	<b>Credit Hours: 2+0</b>
The aim of this course is to provide the students with the knowledge of the principles of pharmacy practice in a hospital setting. It aims to enable students to gain knowledge to practice in various areas of hospital pharmacy including: understanding the basic layout of the pharmacy department in a hospital setting. Understanding the roles of the pharmacist in hospital practice including the distribution of medications, medication compounding. Collaborations as a member of the healthcare team, and other patient care services, identifying and reporting any possible drug interactions and mastering the administrative part of hospital pharmacy services including drug distribution control system & unit Dose Systems.	
<b>Clinical Toxicology</b>	<b>Credit Hours: 2+0</b>
The course is intended to empower students with basic knowledge of Toxicology. The major focus of the course is on basic principles, mechanisms, and common approaches for the management of poisoned patients. Selected topics are covered in this course that includes occupational, heavy metals and drug toxicities. Students will gain knowledge of how selected chemicals/drugs exert toxic effects, present and managed clinically.	
<b>Pharmaceutical Management</b>	<b>Credit Hours: 2+0</b>



The aim of this course is to provide the students with the principles of management related to pharmacy practice. During this course, students are exposed to various management principles which enable them to efficiently manage pharmacy store.	
<b>Pharmacy Laws and Drug Regulations</b>	<b>Credit Hours: 1+0</b>
The course covers various policies, laws & regulations related to pharmacy practice and pharmacy professionals dealing with licensing, pharmacy operations, controlled substances, and operations in institutions. Brief overview of the legal system including nature and sources of UAE laws on practicing pharmaceutical profession and trading in a medicine profession.	
<b>Research Methodology &amp; Biostatistics</b>	<b>Credit Hours: 1+1</b>
This is an intensive introductory course to understand the basic concepts of pharmaceutical, clinical research & statistical methods used in applied research. This helps the students in getting acquainted with different research strategies and identifying potential research plans that will help them in their future research projects. This course help the students to develop the writing skills of research proposal, reports, thesis & articles in international standards. The course familiarize the students with the use of a statistical package and give them the skills needed for effective data management, data manipulation, a data analysis at a basic level. The course will develop basic skills in the use of a statistical package through classroom demonstrations and independent lab	
<b>Nuclear Pharmacy</b>	<b>Credit Hours: 2+0</b>
Nuclear pharmacy is a specialty area of pharmacy practice dedicated to the compounding and dispensing of radioactive materials for use in nuclear medicine procedures. This course covers basic concepts involved with radioactivity, different types of radiations, radiation dose, nuclear medicines, and diagnostic & therapeutic applications of nuclear medicines.	
<b>Pharmaceutical GMP</b>	<b>Credit Hours: 2+0</b>
This course provides a comprehensive overview on the Good Manufacturing Practice (GMP) in manufacturing process and quality control testing of the pharmaceutical products. It covers various aspects of quality control and quality assurance as well as industry standards in the areas of contamination control and microbiology in the workplace, warehousing, production, packaging cleaning and sanitation, documentation and records archiving. Students will also be introduced to GMP audit plan and techniques in addition to the key concepts, facilities and requirements to Good Laboratory Practice (GLP). The instructor will deliver the course contents by multiple learning activities such as didactic lectures, self-learning, class discussion and tutorials. While students' performance will be evaluated via different assessment instruments including class activity, quizzes and written exams.	
<b>Bioassay</b>	<b>Credit Hours: 2+0</b>
The course provides basics of tests applied in screening of new substances or herbal extracts. It also focuses on clarification of the basic concepts of biological assay of drugs based on their pharmacological classification. Experiments applied to assess many drug classes like autonomic-acting agents, anti-histaminics, anti-inflammatory, antihypertensive agents, analgesics and neuroleptics are fully discussed.	
<b>Pharmacoepidemiology &amp; Pharmacovigilance</b>	<b>Credit Hours: 2+0</b>
This course is equip with a basic understanding of the concepts and practice of pharmacoepidemiology and pharmacovigilance in areas related to the assessment of drug safety and risk-benefit of drug use. This course will meet the needs of a wide variety of practitioners. This course covers the basic principles of epidemiological study designs. The process of drug development and limitation to the clinical trials are discussed in this course. The status of Pharmacovigilance System in the UAE is correspondingly discussed with the principles of pharmacovigilance. This	



course also introduces the students to the principles and techniques of pharmacoeconomics and health outcome evaluation.	
<b>Pharmacogenomics</b>	<b>Credit Hours: 2+0</b>
The goal of the course is to give students an understanding of the principles of human genetics and genomics as they apply to improving the problems in drug therapy optimization and patient care, thus providing basic understanding of discipline of pharmacogenomics. The genetic basis of variability in drug response can contribute to drug efficacy and toxicity, adverse drug reactions and drug-drug interaction. As such, pharmacists need a thorough understanding of the genetic component of patient variability to deliver effective individualized pharmaceutical care.	
<b>Professional Skills in Practice</b>	<b>Credit Hours: 2+2</b>
The aim of this course is to provide the students with the knowledge of the various health care providers, rapidly evolving types of healthcare delivery systems, and complexities of relationships among the various health care professionals working within the health care system. Students should be aware of the basic clinical skills required by pharmacists to get the insight they need to cultivate informed, compassionate and effective patient care.	
<b>Integrated Problem Based Learning</b>	<b>Credit Hours: 1+0</b>
The course is clinically oriented to emphasize the pharmacotherapy in patient care. The students discuss different scenarios of patient cases where medical history, symptoms, clinical presentation and laboratory values are stated. The students are directed to raise the objectives of their study in order first to assess the possible drug-related problems, second to suggest possible solutions of these problems and finally to evaluate these solutions based on clinical evidence. This course will enhance the students' oral and written communication skills, and their abilities to extract information from medical records, search, sort, critically think and analyze drug-related information.	
<b>Students Graduation Project (GP)</b>	<b>Credit Hours: 0+6</b>
In the final phase of their studies, students have to present a project based on all round knowledge they have acquired in different areas of pharmaceutical sciences. The presented project is evaluated and the students are assessed for their knowledge by a panel of internal and external examiners.	
<b>Calculations in Practice</b>	<b>Credit Hours: 0</b>
The aim of this course is to provide clear instructions of calculations to pharmacy students with thorough revision, and enabling them to perform flawless calculations accurately which develops confidence in them. Since pharmacist use calculations regularly in their practice, it is vital that they are able to employ calculation skills precisely so as not to compromise patient safety. Therefore the students should get a mandatory pass in this course before getting graduation	
Practical Courses	
<b>Professional Practice Experience (PPE)</b>	<b>Credit Hours: 14</b>
<p>PPE001: Introductory Professional Practice Experience in Community for 200 hours during summer vacations in second and third year of B. Pharm.</p> <p>PPE002: Professional Practice Experience in Pharmaceutical Industry for 100 hours during fourth year of B. Pharm.</p> <p>PPE003: Professional Practice Experience in Hospitals for 700 hours during fourth year of B. Pharm.</p>	





## 9.Examination , Grading & Assessment

### Course Assessment

Each course is assessed as outlined in the course description form and can be further discussed with the course coordinator.

### Types of Assessment:

**Written Examination (Mid semester and Final exam):** Written examination assures that students have attained the appropriate knowledge related to the profession which can be applied in learning the skills. These exams measure the comprehension of students and their improvement.

**Oral exam:** The oral evaluation gives feedback from the students on how they see the relative importance of the different topics. The oral exam is suitable for many types of performance and for working with different competencies. If students' oral communication in a specific area or in general is important, an oral exam is to be preferred.

**Practical and laboratory work:** The practical exam evaluates the skills gained by the student which they have learned in all over the practical sessions offered in the course. It identifies the student's level of performance while demonstrating well-developed skills.

**Assignment:** Assignments are evaluated through rubric scores based on different criteria's. It helps to measure the student's ability to understand the theoretical knowledge in depth. Assignments assess the student's ability to gather the information, processing, interpreting and drawing conclusions.

**Case study:** A specific and detailed description of an event, situation, or circumstance that is presented to a student for study and analysis.

**Scientific Poster:** A large, printed sheet intended for display and containing words, illustrations, or both to provide general or specific information for broad or targeted students.

**Professional Practice Experience reports:** The PPE reports develop observation and recording skills. Students' efficiencies can be measured through the submitted reports which give the detail of students learning activities during the training.

**Article review and Presentation:** Students ability to appraise the literature will be assessed based on their interpretation and presentation of research paper.

**Self-assessment:** Students develop their own list of characteristics and judge their own work. Students learn to monitor their own progress and will strive to improve.

**PBL:** Students active participation, involvement in the group discussion will be peer assessed and also assessed by the instructor. Observations will be recorded as a narrative and highly structured format, such as a checklist. Students knowledge applied in the problem based discussions will be assessed through quiz (teaching and assessment methodologies are presented in the related course descriptor).

### Students Graduation Project:

A project submitted by the students in the fourth year of B. Pharm., based on all round knowledge they have acquired in the four main areas viz., Pharmaceutics, Pharmaceutical Medicinal Chemistry, Natural Products, Pharmacology, Therapeutics and Clinical. This project includes a research work, which the students carry out on recent developments in pharmaceutical sciences.

### Examination Schedule:

The students shall take their exams as per the schedule fixed by the College in the light of the following rules and regulations: The students shall take their exams as per the schedule fixed by the College in the light of the following rules and regulations. Final exams will be held at the end of the semesters (Fall and Spring), on completion of the prescribed syllabus.

### Re-sit Exams:

- Re-sit exams for all the subjects considered necessary shall be held at the end of second semester within a week after the declaration of the examination results.
- Not more than one re-sit exam for any subject shall be allowed within one academic year.

### Course Grading System:

Students are assigned grades (letters) for each course in which they have enrolled. The letter reflects the student's achievement in the course. The minimum grade for passing a course is letter (D) and grades are written in letters according to the following table:

Range of Marks	Grade Point	For BPharm	
		Evaluation	Grade Symbol
95- 100	4	Outstanding	A+
90 – 94.99	3.75	Excellent	A
85 – 89.99	3.50	Very Good	B+
80 – 84.99	3.00	Good	B
75 – 79.99	2.50	Satisfactory	C+
70 – 74.99	2.00	Pass	C
65 – 69.99	1.5	Unsatisfactory	D+
60 – 64.99	1.0	Unsatisfactory	D
Below 65	Failed	Failed	F
Administrative Codes			
Incomplete		I	
Withdraw		W	

### Computation of the Cumulative Grade Point Average (CGPA) and Grade Point Average (GPA)

- The GPA is calculated by multiplying the grade of each course by the number of its credit hours and dividing the total by the number of total credit hours taken in a semester.
- The CGPA is calculated by multiplying the grade of each course by the number of its credit hours and dividing the total of all courses by the number of total credit hours taken for all semesters.

- By contrast, the GPA is the average of grade points of all courses in one semester, whether she passed or failed the course.
- As mentioned earlier, the CGPA is the average of grade points of all courses in all semesters.
- Both GPA and CGPA are rounded to the nearest decimal units. GPA and CGPA are calculated according to the following formula

<b>GPA =</b>	Total (credit hours per course x grades received per course) for all courses taken in one semester
	Total credit hours for all courses taken in one semester
<b>CGPA =</b>	Total (credit hours per course x grades received per course) for all the courses taken in all semesters
	Total credit hours for all the courses taken in all semesters

<b>GPA / CGPA</b>	<b>B. Pharm</b>
	<b>Evaluation</b>
3.75 - 4.00	Outstanding
3.74 - 3.60	Excellent
3.00 - 3.59	Very Good
2.50 - 2.99	Good
2.00 - 2.49	Satisfactory
Less than 2.00	Unsatisfactory

### Incomplete Grades

1. A student who is unable to attend the final exam of any course because of extenuating circumstances such as serious illness, accident or death of a family member during the final examination period seeks an incomplete grade "I" for the course.
2. Grade "I" is granted to the student if the average marks of the course work is not less than 60%.
3. Requests for an "I" grade is made on a form available from Dean's office
4. Unless otherwise stated on the form, the work required to remove an "I" grade is to be completed no later than the end of the second week of the next semester in which the student registers at the university, otherwise a grade of "F" is recorded.
5. (For Credit System students only) after the two week add/drop period, and up to the end of the 10<sup>th</sup> week of a semester, students may choose to withdraw from a course without academic penalty; however, a grade of "W" will appear on the student's transcript

## 9.1.Scheme of Assessment

Semester	Code	Domain	Courses	Lecture	Practical	Total Units	Assessment Tools																		
							Quizzes	Oral	PBL assessment	Class activity	Case based assessment	Assignment	Presentation/Poster	Project Report				Mid Semester	Practical				Final Exam		
															Self-learning	Homework	Portfolio		Exam	Attitude & Behavior	Manual	Attendance			
First Semester	PN701	BS	Organic Chemistry- I	3	0	3	5			10							10		20						55
	MC701	BBS	Anatomy and Physiology I	3	1	4	5	10		5								20	12	2	3	3		40	
	GE701	GE	Mathematics & Statistics	3	0	3				10														90	
	GE702	GE	English Language and Study Skills	2	0	2				5		10	10	5				20						50	
	MC702	BBS	Medical and Pharmaceutical Terminology	1	0	1												20						80	
	GE703	GE	General Psychology	2	0	2	5			5	5							20						70	
	GE704	GE	Islamic Studies	2	0	2				10		10	10											70	
	GE705	GE	History of Pharmacy	2	0	2	5			5		10						20						60	
Second Semester	GE706	GE	Computer Applications and Informatics	1	1	2				10		20						20						50	
	CP701	CS	Orientation to Pharmacy	1	0	1	5			5		10						20						60	
	PN702	BS	Organic Chemistry- II	3	1	4	5			5								20	15	5	5	5		40	
	PC701	PS	Pharmaceutical Calculation	2	0	2	5			5							10	20						60	
	MC703	BBS	Anatomy and Physiology-II	3	1	4	5	10		5								20	12	2	3	3		40	
	PN703	PS	Natural Products-I	3	1	4	5			5						10		20	12	2	3	3		40	
	PN704	BS	Analytical Chemistry	2	1	3	5											20	15	5	5	5		45	
Third Semester	PN705	PS	Pharmaceutical & Medicinal Chemistry -I	4	0	4	5			5								45						45	
	PN706	PS	Natural Products-II	3	0	3	5			5			15				5	20						55	
	MC704	BBS	Biochemistry-I	2	1	3	5			5		10						20	12	2	3	3		40	
	PC702	PS	Physical Pharmacy	3	1	4	5			5								20	15	5	5	5		40	
	PC703	PS	Pharmaceutics- I	2	1	3	5			5								20	15	5	5	5		40	
	PC704	PS	Microbiology	3	1	4	5			5								20	15	5	5	5		40	
Fourth Semester	PN707	PS	Pharmaceutical & Medicinal Chemistry -II	3	1	4	5											20	15	5	5	5		45	
	PT701	PS/CS	Pharmacology and Therapeutics- I	4	1	5	5			5								20	15	5	5	5		40	
	MC705	BBS	Pathology	2	1	3	5			5		10						20	12	2	3	3		40	
	MC706	BBS	Biochemistry-II	2	1	3	5			5		10						20	12	2	3	3		40	
	MC707	PS	Basic Genetic	2	0	2	5			10					10			20						55	
	PC705	PS	Pharmaceutics-II	2	1	3	5			5								20	15	5	5	5		40	

Semester	Code	Domain	Courses	Lecture	Practical	Total Units	Assessment Tools																
							Quizzes	Oral	PBL assessment	Class activity	Case based assessment	Assignment	Presentation/Poster	Project Report				Mid Semester	Practical				Final Exam
															Self-learning	Homework	Portfolio		Exam	Attitude & Behavior	Manual	Attendance	
	PN708	PS	Phytochemistry	3	1	4	5			5					10			20	12	2	3	3	40
Fifth Semester	PN709	PS	Pharmaceutical & Medicinal Chemistry-III	3	0	3	5			10							25						60
	PN710	PS	Pharmaceutical Analysis	3	1	4	5										20	15	5	5	5	45	
	PT702	PS/CS	Pharmacology and Therapeutics- II	3	1	4	5			5							20	15	5	5	5	40	
	PC706	PS	Biopharmaceutics and Pharmacokinetics	3	1	4	5				10						20	12	5	3	5	40	
	MC708	BBS	Immunology	2	0	2	5			10				10			20					55	
	PT703	PS/CS	Pharmacology and Therapeutics- III	3	1	4	5			5							20	15	5	5	5	40	
Sixth Semester	CP702	CS	Applied Pharmacokinetics	2	0	2			5	15							20						60
	CP703	CS	Pharmacy Practice	3	1	4	5			5							20	15	5	5	5	40	
	PC707	PS	Pharmaceutical Technology	3	1	4	5			5							20	15	5	5	5	40	
	PC708	PS	Pharmaceutical Biotechnology	3	0	3	20			10				10								60	
	EC701	EC	Elective Area I	2	0	2	10			15				15								60	
	CP704	CS	Clinical Pharmacy and Pharmaceutical Care	3	1	4	15					10						15	5	5	5	45	
seventh Semester	CP705	CS	Professional Skills in Practice	2	2	4												10	10	10	10	60	
	CP706	CS	Pharmacy Laws and Drug Regulations	1	0	1			10													90	
	CP707	CS/GE	Research methodology and Biostatistics	2	0	2	5			5				40								50	
	PT704	PS/CS	Pharmacology and Therapeutics- IV	3	1	4	5			5							20	15	5	5	5	40	
	EC702	EC	Elective Area II	2	0	2	20			10					10							60	
	CP707	CS	Hospital Pharmacy	2	0	2	5			10					10			20					55
Eighth Semester	CP708	CS	Pharmaceutical Management	2	0	2	20			10					10								60
	CP709	CS	Pharmacoepidemiology & Pharmacovigilance	2	0	2	15					10	15									60	
	CP710	CS	Calculations in Practice	0	0	0																50	
	CP711	CS	Clinical Toxicology	2	0	2	20			10					10							60	
	CP712	CS	Pharmacogenomics	2	0	2	20			10					10							60	
	CP713	CS	Integrated Problem Based Learning	1	0	1																100	
	EC703	EC	Elective area III	2	0	2	20			10					10							60	
	GP701	GP	Students Graduation Project	0	6	6		25					50	25								-	

## 9.2.Seminar Rubrics

Student Presenter: \_\_\_\_\_

Grading Scale:

Evaluator: \_\_\_\_\_ Date: \_\_\_\_\_

F	D+	C	C+	B	B+	A	A+	

Knowledge & content	1 (below 40)	2 (40-60)	3 (60-80)	4 (80-100)	Score
Organization and Presentation	Hard to follow; sequence of information jumpy	Most of information presented in sequence	Information presented in logical sequence; easy to follow	Information presented as interesting story in logical, easy to follow sequence	
Background Content	Material not clearly related to topic C background dominated seminar	Material sufficient for clear understanding but not clearly presented	Material sufficient for clear understanding AND effectively presented	Material sufficient for clear understanding AND exceptionally presented	
Contribution of Work	Significance not mentioned or just hinted	Significance mentioned	Significance explained	Significance exceptionally well explained	
Knowledge of Subject	Does not have grasp of information; answered only rudimentary questions	At ease with information; answered most questions	At ease; answered all questions but failed to elaborate	Demonstrated full knowledge; answered all questions with elaboration	
<b>Presentation Skills</b>					
Graphics (use of PowerPoint)	Uses graphics that rarely support text and presentation	Uses graphics that relate to text and presentation	Uses graphics that explain text and presentation	Uses graphics that explain and reinforce text and presentation	
Mechanics	Presentation has more than 10 misspellings and/or grammatical errors	Presentation has no more than 5 misspellings and/or grammatical errors	Presentation has no more than 2 misspellings and/or grammatical errors	Presentation has no misspellings or grammatical errors	
Eye Contact	Reads most slides; no or just occasional eye Contact	Refers to slides to make points; occasional eye contact	Refers to slides to make points; eye contact majority of time	Refers to slides to make points; engaged with audience	
Elocution - not ability to speak English language	Mumbles and/or Incorrectly pronounces some terms	Incorrectly pronounces some terms	Incorrectly pronounces few terms	Correct, precise pronunciation of all terms	
Intonation	Voice is low; difficult to hear	Voice fluctuates from low to clear; difficult to hear at times	Voice is clear with few fluctuations; audience can hear well most of the time	Voice is clear and steady; audience can hear well at all times	
Length and Pace	Short; less than 30 min	Short 40 min OR long > 50	Adequate 40-45 min	Appropriate (45-50 min)	
	Rushed or dragging throughout	Rushed or dragging in parts	Seminar mostly well-paced	Well-paced throughout	

## 10. Teaching Activities (Pedagogy)

### 1. Integrative Methods

**Lecture** — An oral presentation, usually formal in nature, to a group by an individual highly knowledgeable about the subject.

**Brainstorming** — A process in which students are encouraged to participate by sharing their ideas or suggestions on a subject. No discussion of each point is allowed until important ideas have been expressed.

**Group Discussion** - A small group comprising of not more than 10 students with each faculty member to discuss on subject related topics

**Office Visit** — A face-to-face exchange of information among two or more students, usually at the location of the information provider

### 2. Reinforcement Methods

**Problem-based learning (PBL)** is a student-centered instructional strategy in which students collaboratively solve problems and reflect on their experiences. Student-focused problem-based learning is a self-directed process characterized by active acquisition of knowledge and problem-solving skills by students that occurs from the process of reasoning towards the understanding or resolution of problems. It results in a usable knowledge data base that has been actively acquired and is reinforced through repeated applications. Students are motivated by the internalized reward of discovery and develop a colleague based learning that will produce pharmacists who have learned to learn and have the ability to apply their knowledge base to the resolution of new and unique problems.

**E learning and Computer software's**- Use of electronic education technology and a set of instructions or program, that enables a computer to be used to provide educational information, to transmit communication or to aid in decision making.

**Self-Directed-Learning**- Since self-directed learning is believed to promote lifelong learning so students are motivated to take up self-learning exercises and are also encouraged to make presentations on allotted topics during the regular lecture schedules.

**Symposium** - An assembly in which short presentations are made by a small number of speakers who are knowledgeable about a particular subject. These presentations may range from 20 to 30 minutes each.

**Group Discussion** - A small group comprising of not more than 10 students with each faculty member to discuss on subject related topics

**Panel Discussion**— A gathering at which a panel of individuals discuss a subject in front of students but interact with student members only when those members wish to ask a specific question or clarify a point under discussion. When a particular point is resolved, the organized discussion among panel members continues.

**News Letters** — A publication of six pages or fewer, focusing on broader topic related to the subject that presents instructions, guidelines, or other specific information.



**Scientific Poster** — A large, printed sheet intended for display and containing words, illustrations, or both to provide general or specific information for broad or targeted students.

**Leaflet or flier** — Brief, concise printed information focused on a specific program, objective, current event, or other activity and designed to create or enhance awareness.

**Pamphlet or booklet** — A printed publication that provides more comprehensive information on a subject than a fact sheet, leaflet, or flier

**Journal club** — A means of presenting scientific, theoretical, or philosophical information in a professional journal or in a periodical that focuses on a specific discipline, commodity, student, or subject matter.

### 3. Practical Methods

**Method demonstration:** An explanation of how to implement a practice or accomplish a task by showing a practical application or guiding the learner in carrying out the task.

**Result demonstration:** A presentation that shows the effects of a practice change or task by means of practical application, using visual, experiential, or oral methods; it usually involves a before-and-after comparison.

**Field trip:** A planned activity of one-day duration in an outdoor setting for demonstrations; observation of programs, practices, activities, or objects; presentations; or practical experiences.

**Workshop:** A meeting in which a small group of people with common interests meet to study or research a specific topic or to practice a specific skill to enhance their individual knowledge and proficiency.

**Role play:** An exercise in which selected members of a group are assigned to play specific roles in a hypothetical or simulated situation followed by discussion among all group members.

**Case study:** A specific and detailed description of an event, situation, or circumstance that is presented to a student for study and analysis.

**Practical Exercise: Statistical Analysis of Data or results** — Evaluation, use, or presentation of new or existing data to explain or predict the impact of a practice, innovation, input change, or changing conditions and circumstances

**Professional Practice Experience-(PPE):** Professional Practice Experience (PPE) is the experience gained during the training period in community pharmacies, hospitals and pharmaceutical industries.

#### **Students Graduation Project:**

A project submitted by the students in the fourth year of B. Pharm., based on all round knowledge they have acquired in the four main areas viz., Pharmaceutics, Pharmaceutical Medicinal Chemistry, Natural Products, Pharmacology, Therapeutics and Clinical. This project includes a research work, which the students carry out on recent developments in pharmaceutical sciences.

### Facilities for Teaching

Dubai Pharmacy College for Girls has excellent teaching facilities for students. It has four lecture rooms which are equipped with a video projector, computerized digital whiteboard, smart-board a Lap-top, on-line computer and audio-visual facilities. For quizzes and assessment of student learning clickers are used in classrooms. DPCG established a virtual learning environment (VLE) available through Desire2Learn platform namely Learning Management System (LMS). The faculties and the students are trained to use the LMS efficiently. Lecture notes will be posted on LMS in PowerPoint or Microsoft Word or PDF formats at least 24 hours in advance, so the students are expected to read over the lecture material prior to coming to class. The students have access to the LMS through user name and password so that they can communicate with the instructor at any time. Besides these the College also provides printed hand-outs or notes for the offered courses before the beginning of the next semester so that the students when they join the College should come well prepared in advance.

## 11. Progress Policy Guidelines

### Satisfactory Progress

A student must maintain a semester GPA of 2.00 to be considered making satisfactory progress.

### Probation

Students who fail to achieve a semester GPA of 2.00 shall be placed on probation for one semester. If the student achieves a semester GPA of 2.00 or better during the probationary semester she makes satisfactory progress but has not achieved the required semester GPA of 2.00, the student may continue on probation for one additional semester and will be allowed to appear in the supplementary exams held in September each year for both semesters.

### Unsatisfactory Progress

If the student on probation fails to achieve a semester GPA of 2.00 at the end of the first probationary semester, the student will be reported to the Dean as making unsatisfactory progress. The student will be permitted to remain on probation for one additional semester.

A student who fails to achieve a semester GPA of 2.00 at the end of the second consecutive probationary semester shall be reported by the Examination and Evaluation Unit to the Dean's Office as making unsatisfactory progress.

**Note:** If a student fails to obtain the GPA 2.0 (70%) then she should repeat the course(s) in which unsatisfactory grades (D/D+) are got. In case, failing to improve the grades even after repeating the course(s) those students will be dismissed from the College.

## 12. Policy for Completion of Undergraduation

**A student will be awarded Bachelor of Pharmacy (B.Pharm) degree subject to fulfilling the following requirements:**

- **Completion of all courses, Professional Practice Experience, Students Graduation Project and to pass in Calculation in Practice course as specified in the study plan**

Students enrolled in this program are exposed to a core professional curriculum that includes the basic sciences, basic biomedical sciences; pharmaceutical sciences; and clinical sciences in addition to general education and elective courses.

The curriculum, which is offered through 170 credit hours (CH), is organized to include 131 CH core requirement courses, 6 CH elective courses and 13 CH general education courses, 12 CH of Professional Practice Experience and 6 CH Students Graduation Project.

- **Maintain a CGPA of at least 2.0 on a 4.0 scale.**
- **Minimum and maximum periods of enrolment for the completion**  
The minimum duration required for completion of the BPharm program is 4 years and the maximum period should not exceed 6 years.

### 13. Student Rights & Responsibilities

#### Statement of Student Rights and Responsibilities

Every student who enrolls at DPCG has a right to a student-centered education, research and services. Students should positively contribute to the safe learning environment by maintaining high standards of integrity and academic honesty at the same time familiarizing themselves with and adhere to all policies and regulations of the College.

#### Student Rights

For a registered student in Dubai Pharmacy College for Girls the rights are:

1. Obtain pharmacy education according to a well-established educational program and in a suitable educational environment.
2. Attend theory and practical classes regularly and to participate in scientific discussions held in the class as directed by the faculty.
3. Participate in all students activities sponsored by Student Union.
4. Benefit from facilities offered by the College such as library, hostel, transportation and others.
5. Get the identity card issued annually from the College after payment of its fees in order to prove that she is a student in the College.
6. Appear in all examinations and evaluations conducted according to the regulations of the College.
7. Get health care facility in case of emergency and first aid only. The College will not be responsible for expenses of treatment in any case and only transportation can be provided to and from medical clinics in Dubai.
8. Get social care services offered by the College.
9. Have a residence visa sponsored by the College for hostel students as per the rules. The student will bear all expenses for her residence visa.
10. Get the following certificates from the College:
  - a. An annual certificate to prove that she is studying in the College
  - b. A certificate to prove her academic level which she obtained as per the College records
  - c. A certificate for the expenses required for her College study
  - d. A certificate for her good behavior and discipline in the College
  - e. A graduation certificate after she fulfills all the requirements needed for graduation as per College rules
  - f. A release certificate from the College

**Note:** All the certificates mentioned above in (10 a to f) should be issued as per the College rules and also

according to the requirements of the student. The first copy of all certificates issued will be free of charge. If the student needs another copy then it will be given by charging a nominal fee fixed by the College. But photocopies (like the original) of certificates will be given free of charge.

### Student's Responsibilities

The duties of the students are:

1. Do her best to achieve the goals set by the College as mentioned in the regulations of the College.
2. Do her best to achieve high level of scientific and educational standard. To achieve the desired level, she should not hesitate in taking help from the administration, the Dean and staff members of the College so that there is no hindrance in her way.
3. Follow all the rules and regulations of the College for academic and scientific activities.
4. Participate positively in evaluating the College development and performance by giving advice and written suggestions to the College administration in the questionnaire annually or by other means.
5. Handle all the properties of the College like instruments, equipment etc., carefully.
6. Be cooperative in adopting all the College principles especially the following:
  - (a) To wear Islamic *Hijab*
  - (b) To be punctual in offering prayers
  - (c) To maintain good relationship with her colleagues
7. Inform the College administration or the Dean about misbehavior or any mistakes committed by any student, which may give bad reputation to the College.
8. Pay the fees regularly as required by the College.
9. It is mandatory for all the students to follow the rules relating to attendance and any non-compliance will lead to consequences mentioned in the attendance policy mentioned in Student Handbook.

### 14. Student Appeals Policy

Every student has right to put across her appeal within fifteen days. The appeal is addressed to the Dean. If it is not resolved properly then the student can appeal to higher authorities of the College Administration. The decision given by them will then be considered as the final decision. Appeals are limited to requests to continue in the BPharm program after being dropped from the program for academic reasons and dissatisfied course grades.

### 15. Students Grievance Policy

#### Informal Resolution:

Any student in DPCG who believes that she has been treated inequitably is encouraged to resolve the matter informally. The student should first talk with the person or group at whom the grievance is directed in an attempt to resolve the issue informally.

#### Grievance Procedure:

The grievance procedure is described below.

1. To initiate the formal grievance procedure, the student must submit her grievance, in writing, to the Dean of DPCG.
2. The written grievance shall include:
  - a. a statement that the student wishes a review of the situation by a Grievance Committee.

- b. the identification of the person or group at whom the grievance is directed;
  - c. the specifics of the perceived inequitable treatment;
  - d. evidence in support of the student's belief that she has been treated inequitably.
3. A grievance must be initiated no later than 15 calendar days from the time the student knew or could reasonably have been expected to have known of the circumstances giving rise to the grievance.
  4. After receiving the grievance the Dean will study the case with the Disciplinary Committee of the College.
  5. After inquiry, the report shall be notified to the Student about the action on the grievance and the grounds for the action taken.
  6. If the grievance is not resolved properly then the student can appeal to higher authorities of the College Administration. The decision given by them will then be considered as the final decision.

## 16. Education Support Facilities

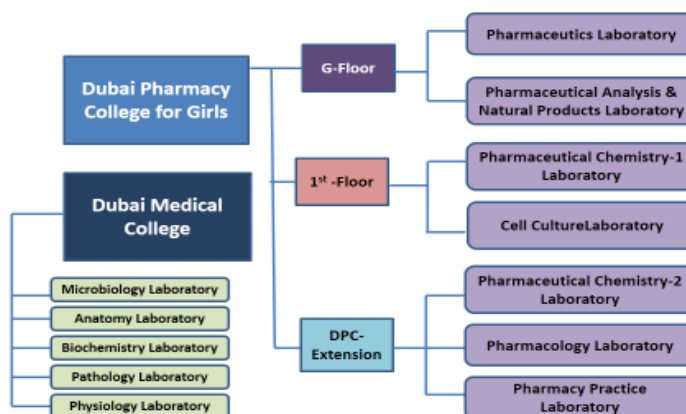
Dubai Pharmacy College for Girls (DPCG) provides all educational support facilities to its students. The students get the best scientific training and knowledge which will make them eligible as pharmacists to boost the vast scientific and industrial development of U.A.E.

### COLLEGE BUILDING

The College building, on the ground floor has 2 laboratories, administrative and faculty offices, a meeting room, examination control room and a reception section. On the first floor, are housed one laboratory, four lecture rooms, student's affair office, student advisory office, students' common room, students printing office and chemical and glassware store. In addition, the DPCG extension including 2 laboratories, a model pharmacy with a drug information center, LMS examination Hall equipped by computer, main examination hall, animal house and the main library. Besides the above facilities, the College is supported by a Machine Room (Industrial unit) situated in the Lootah's Educational Campus for conducting training and practicals in Pharmaceutics-I & II and Pharmaceutical technology courses.

### LABORATORY AND INSTRUMENTATION FACILITIES

DPCG possesses well-equipped laboratories for each discipline. There are five laboratories in the College premises equipped with scientific apparatus and equipment required for practical and scientific investigations. Some laboratories are in Dubai Medical College and are common to both the Colleges. The laboratories are:



## AUDITORIUM

A well-furnished auditorium, located in DMCG, is spacious and suitable for any cultural occasion. It has become a regular venue for all social and cultural activities of DPCG.

## STUDY ROOMS

DPCG provides study room facilities for its students, which may be utilized by them in their break hours and also by hostel students after the class hours. These study rooms are located in DMCG and are well furnished with all required facilities. The students have an easy access to these study rooms and are free to use all facilities present there like computers with Internet and Journals.

## LIBRARY

The Library in DPCG offers an excellent environment for study. It is available to students at various stages of study. The library working hours are arranged as far as possible to meet students' need. The library has subscribed e -Journals in various areas of Pharmacy and Medical Sciences. The physical facilities in the library are adequate space is given for housing the collection of books, journals, and audiovisuals. There is also a large reading room to facilitate learning. Students have access to computer terminals to search on-line catalogs, databases, and other information systems. The library is also equipped with photocopying machines.

### Opening hours:

Sunday - Thursday	7.30am – 3.00pm
Friday	8.00am – 1.00pm
Saturday	9.00am – 3.00pm

## COMPUTER LABORATORY

The Computer Laboratory is helpful in teaching of English language, computer science, pharmacy practice, pharmaceutical care, therapeutics and clinical pharmacy courses. The Computer Laboratory, well equipped with computers, have Internet connections along with auditory systems. Besides this Computer Laboratory, the College enjoys full technical guidance, support and know- how from the Information Technology (IT) department, which is its sister organization and is adjacent to DPCG campus.

The mission of the I.T. department is to provide computer support, awareness and training services throughout the year to faculty, administrative staff and students. It also has a laboratory which is well equipped and is freely available for use. It is monitored by well qualified staff to render help and assistance.

## ACCOMMODATION FACILITIES

DPCG provides hostel facility for students who apply for it. It is close to the College and has well-furnished bedrooms, dining room, study room and all the required facilities. Besides these facilities, internet connection is available in each room to aid them in preparing their notes and seminars. On each floor of the hostel there is a provision for praying and a gymnasium club. Students can obtain advice on accommodation from the hostel Supervisor.

## HEALTH CARE FACILITIES

The College arranges to provide health care facilities to students living in the hostels. DPCG has a contract for health care with its sister organization Dubai Medical Centre (DMC). DMC doctors do periodical checkup for all the students. Those found ill are taken care of by them. In severe cases the hostel authorities send the resident students to Dubai Government hospitals.

## STUDENT COUNSELING SERVICES

Students who experience personal, emotional and social difficulties and may need counseling or support.

DPCG provides students with counseling services through a trained student counselor who helps them to cope up with a wide variety of student matters.

### **TRANSPORTATION FACILITIES**

DPCG has special minibuses for transporting students from Sharjah, Ajman, Dubai and hostel. These buses are fully air-conditioned and quite comfortable. They are used for field trips and educational tours too.

### **MOSQUES**

The College has mosques inside its campus for faculty, staff and female students which sustains the Islamic atmosphere in the College.

### **DINING SERVICES**

Cafeteria adjoining the College is spacious and hygienic. It offers food and beverages of students' choice. Thus it's a rendezvous for students to relax and enjoy during breaks.

### **RECREATIONAL FACILITIES**

In the campus there is a swimming pool, basketball court and gymnasium club. These facilities help the students in maintaining proper physical fitness.

### **BOOKSHOP**

There is a bookshop in the College which sells textbooks at subsidized rates of various subjects taught in the College. The bookshop also provides services on photocopying at a minimal charge.

## **17. Students' Support Services**

### **STUDENT UNION**

There is a "Students' Union" consisting of members from student community elected from all years of BPharm. The elections are held regularly at the beginning of each academic year.

The Student Union serves as the principal student programming organization at DPCG. It is responsible for providing a balanced program of social, religious, recreational and cultural activities for the College, aiming to make free time activity a cooperative facet with study. The Student Union also helps to maintain close links between the College administration, faculty, and the students which are essential for efficient functioning of the College.

### **ACADEMIC ADVISING AND MENTORING**

Students are allotted a faculty member for academic advising / mentoring. The Faculty-Advisor who is assigned to a study-group of students; guides in matters pertaining to their study plan, student development, the curriculum and other academic affairs. The advisor helps the student to organize her study plan and supervises its implementation and assists her in overcoming any difficulties related to it.

Faculty-Advisor identifies students making unsatisfactory progress in each class and remedial classes are arranged to improve their GPA. He/She also advises the student about the introduction of credit hour system and its requirements for graduation to obtain Degree in Pharmacy.

Faculty Advisors will maintain a student record based on student's dress code, attendance in classes, academic performance (GPA/ CGPA) and conduct in College.

They also provide information about programs, services, facilities and involvement opportunities that support academic success and lifelong learning, which facilitate responsible life choices, and promote awareness of self and community. It has specific mission but one common goal: to provide academic advising, outreach and support.

### STUDENTS COUNSELING SERVICES

DPCG provides students with counseling services through a trained student counselor. She provides personal counseling to the students concerning their personal, social and moral problems, which may cause hindrance in the way to the students' success. The personal counseling to students is provided by prior appointment with the Counselor during the College working hours.

Periodically, group counseling sessions are also arranged in each academic year. The announcement of such sessions, giving the time, date and venue, is made via the college bulletin boards. Make it a habit to attend these counseling sessions on the due dates.

### STUDENTS CAREER PLANNING SERVICES

DPCG provides career counseling to its students regarding career information and planning, career development, testing and prospective job placement. DPCG also provides assistance to develop different skills necessary to start a career in various Pharmaceutical settings.

Career Guidance sessions at DPCG are provided to the 4th year BPharm students on individual and/group basis with prior appointment with one of the personnel; Dean, Head of Alumni Affairs / Head of Professional Practice Experience Unit. They guide the students about the availability of the opportunities to help them decide on their future plans. They will serve to ensure the:

1. Preparation for MOH exams.
2. Self-improvement program for career development.
3. Availability of Jobs in different fields of Pharmacy practice.
4. Counseling for postgraduate and further studies.

## 18. Glossary of Terms

### Unit System

DPCG uses the course unit system which is based on the required number of hours of instruction to be successfully completed according to the standards set by the College to obtain University degree i.e. Bachelor of Pharmacy.

### Credit Hour

Credit hour refers to one lecture hour per week lasting for minimum 18 weeks.  
Each lecture hour is equivalent to two hours of practical study per week.

### Course

Each course is a program of study presented in lectures and practical with a fixed number of credit hours taught in one semester mentioned in the curriculum.

### Curriculum

Curriculum is a total description for the BPharm. program and explains the following:

- Detailed syllabus of integrated courses that fulfill the requirements for BPharm. Degree.
- Professional Practice Experience as required for BPharm. degree.

### Pre-requisite

It refers to each course which is found necessary for each student to complete successfully before being allowed to register in a subsequent one e.g. Organic Chemistry I is made a pre-requisite for Organic Chemistry-II.





### Study load

Study load in DPCG means the number of credit hours a student is registered for and has to attend weekly classes. In DPCG in spite of introducing credit hours system the load is according to the time table fixed for each class. The only provision given to the student will be the minimum credit hours out of the total that they have to successfully complete each semester in order to be promoted to the next semester.

### Course Types

- a. An **elective** is a course chosen by a student listed from different areas available during the study period.
- b. A **general education** is a course offering within the following areas such as Islamic studies, English, Mathematics, etc.
- c. A **core requirement** course is a course within a major, which is essential and must be satisfactorily completed to fulfill the requirements of the specific departments.
- d. **Professional Practice Experience** provides opportunity for a student to have workplace experiences in community, industry and hospital pharmacies and must be satisfactorily completed to fulfill the requirements of the program.
- e. **Students Graduation Project:** A project submitted by the students in the fourth year of B. Pharm., based on all round knowledge they have acquired in the four main areas. This project includes a research work, which the students carry out on recent developments in pharmaceutical sciences.



## **Appendix A**

# **Professional Practice Experience**



## Internship

The aim of this procedure is to make sure that the students of DPCG get adequate experience in various pharmacy practice settings such as, Community Pharmacies, Pharmaceutical Industries and Hospitals, in order to achieve mission of the College.

Professional Practice Experience (PPE) in pharmacy education is rapidly gaining recognition as it enriches undergraduate curriculum and bridges theory to application.

This procedure applies to all the third and/ fourth year students, Student's Professional Practice Experience Unit, comprising of a Head, Members, Administrative Staff and the Staff in Community, Pharmaceutical Industry and various Hospitals who are responsible for the implementation of this procedure.

### Definitions

#### **PPE001:**

Introductory Professional Practice Experience in Community for 200 hours during summer vacations in third year of BPharm.

#### **PPE002:**

Professional Practice Experience in Pharmaceutical Industry for 100 hours during fourth year of BPharm.

#### **PPE003:**

Professional Practice Experience in Hospitals for 700 hours during fourth year of BPharm.

#### **Logbook:**

Supplied by the College to the students, which is an instructional manual with queries regarding Professional Practice Experience in different pharmacy practice settings.

### Process

As the pharmacy profession has moved from the traditional product to patient orientation, curricula within the schools and colleges of pharmacy have evolved to introduce more experiential course work to foster this patient orientation. This change has been supported by the philosophy of pharmaceutical care that encourages pharmacists to assume a patient advocacy role in optimizing a patient's drug therapy while minimizing the adverse effects of the medication.

The role of experiential education is to hasten and enhance the development of the student's ability to provide pharmaceutical care.

Professional Practice Experience, being an integral part of DPCG education program, has been given more emphasis to improve its implementation in the present curriculum and the number of hours have been rescheduled to 1000 to be distributed as follows:



1. Professional Practice Experience (PPE 001) in <b>Community Pharmacy</b> for not less than <b>200 hrs.</b>
2. Professional Practice Experience (PPE 002) in <b>Pharmaceutical Industry</b> for <b>not less than 100hrs</b>
3. Professional <b>Practice Experience</b> (PPE 003) in <b>Hospitals</b> for <b>not less than 700hrs (14 credit hours).</b>

### Professional Practice Experience Test (PPET)

After the completion of PPE, students will be evaluated with structured evaluation checklists and oral examinations for PPE001 and PPE 03, and written test for PPE002 in coordination with the training staffs. It will be useful to assess their knowledge and training outcomes taking into consideration the accomplishment of output of the training goals.

### Evaluation of PPE

At the end of each of PPE001, PPE002 & PPE003 the students must answer a questionnaire. College Supervisor will collect these questionnaires and co-ordinate the results. The results of this study will be discussed in the College Academic Council Meeting and the Advisory Committee for any improvements in Professional Practice in Community, Hospitals and Pharmaceutical Industry, if considered necessary.

### Logbooks

- Each student will be provided with a Logbook at the start of each PPE.
- The main objective of the Logbook is to achieve the goals of PPE.
- Logbook is a manual designed by Dubai Pharmacy College, which is to be filled by the student during Professional Practice.
- Every Student should have her own "Log Book" to write down daily activities, during the PPE.
- College Supervisor will provide the student with the procedure for filling the Logbook.
- The student should submit the Logbook to the College supervisor at the end of her Professional Practice.

### Student's Responsibility:

The student must be informed before each PPE about her responsibilities which are as follows:

1. She must exhibit a professional appearance in manner and dress and adhere at all times to the standards of dress behavior.
2. She must wear her name badge at all time during PPE.
3. She must regard all information and activities relating to the pharmacy, the medical community and customers to be confidential and, under no circumstances will such knowledge be revealed to anyone.
4. She must keep in mind that the primary aim of PPE is learning. Learning is not a passive process, but requires a continuous, active commitment.
5. She should recognize that the best learning environment is one that fosters mutual respect and courtesy between the trainee and preceptor.
6. She should never question the advice or directions of the preceptor in public, personnel, but rather accept it as a means of learning.
7. She should never be hesitant to admit that something is not known to her and should seek help whenever needed.



8. She should be aware of all laws and rules which govern her practice, and should seek clarification of any points which are not clear.
9. If she is regularly asked to violate laws or has knowledge that the pharmacy where she is employed violates such laws, she should immediately report and ask for change of PPE site or the preceptor. She shall report within five days after the end of each PPE to PPE Coordinator.

### **I) Professional Practice Experience in Community Pharmacy (Introductory PPE 001)**

It is taken by the students in one or more Community Pharmacies selected by PPE coordinator during yearly summer vacations in the second and third years of B. Pharm. under course heading PPE001.

Introductory practice experiences are intended to introduce the student to pharmaceutical care. Service learning and shadowing are two types of experiences that accomplish this goal.

Service learning allows students to participate in service projects that meet the needs of the community, foster a sense of caring for others, and lead to student learning through communication and professionalism. Therefore, there are reciprocal benefits for both the community and pharmacy students. The development of caring relationships during service learning prepares students for establishing conventional patient caring relationships.

Shadowing, another type of introductory practice experience, involves the student in observing practitioners conducting pharmaceutical services in the community pharmacy.

Regular visits, at least once, will be done by the faculty member of DPCG to monitor the students training and have discussions with preceptors and students.

### **Learning Outcomes**

On completion of the of Introductory Professional Practice Experience in one or more Community Pharmacies, the students will be able to

- LO1** Identify main pharmacy locations and distribution of medicines in community pharmacy.
- LO2** Distinguish the prescription and non-prescription medications and pharmaceutical products available in the market
- LO3** Recognize the minor to moderate medical cases that can be managed by the pharmacist
- LO4** Recognize the standard information required in a prescription
- LO5** Review the prescription for proper product selection, proper dose, proper frequency, proper duration, drug interaction, drug disease interaction to ensure effective, safe and economic patient care
- LO6** Apply calculations required for compounding, dispensing and administering medications with proper conversions between metric, and apothecary system of weights and measures
- LO7** Practice proper prescription checking, pricing, preparing, and labelling
- LO8** Apply, modify or recommend modifications in prescriptions to ensure effective, safe and economical patient care.
- LO9** Resolve prescription problems
- LO10** Record prescription using files and / or computer.
- LO11** Identify policy to inventory control (including purchase of medicines, expired medications and return of patients to suppliers)
- LO12** Recognise good storage practice in Community pharmacy.
- LO13** Apply IT skills for gaining professional information and literature
- LO14** Communicate with Health professionals for effective resolution of drug related problems.
- LO15** Communicate with preceptors for reviewing cases, diseases or drugs

**LO16** Operate the professional experience in patient counseling and monitoring.

**LO17** communicate with patients for taking patient history, selecting, recommending self therapy or OTC drugs.

**LO18** Develop the concepts for rational use of different pharmaceutical dosage forms.

### **Supervision of PPE001**

Introductory PPE is carried out under the supervision of the College supervisor (Member of Student Professional Practice Experience Unit) and a preceptor at PPE site who plays positive role model for students and who possess the following characteristics.

#### **Preceptor's characteristics**

The Preceptor or the Pharmacist should:

1. Have minimum of one year of professional experience.
2. Be involved in professional organizations.
3. Be competent in the area of practice.
4. Take personal responsibility for patient outcomes.
5. Utilize clinical and scientific knowledge in clinical care decision – making.
6. Demonstrate the ability of having latest scientific knowledge in Pharmaceutical field.
7. Demonstrate a desire and an aptitude for teaching.
8. Demonstrate the ability to assess and document student performance.
9. Practice continuous professional development and collaborate with other healthcare professionals as a member of a team.
10. Demonstrate a commitment to his/ her organization, professional society and community.

#### **Role of Preceptor**

1. To train the students as per the objectives of PPE.
2. To evaluate students for their performance during PPE in developing and demonstrating the explicit skills mentioned for each PPE.
3. To ensure the recording of all data in the log book.
4. To supply the College supervisor a certificate indicating PPE completion of the student in the pharmacy.
5. To report to the College supervisor after completion of PPE.

#### **Steps for Introductory PPE 001**

1. PPE co-ordinator asks all students to suggest at least two community pharmacies of their choice with the name and qualification of the pharmacists working in these pharmacies.
2. The coordinator collects all the students before PPE and gives them the Log Book.
3. PPE coordinator explains the objectives of PPE001 and student's responsibility during PPE and also provide information to each student about the selected preceptor.
4. Each student receives a letter signed by PPE001 coordinator and the Dean for the preceptor which has the starting date and completion date of PPE.
5. After completion of PPE001 the Coordinator receives Preceptor's reports and Evaluation sheets and send them to Evaluation and Examination Unit.



### Evaluation of students receiving PPE 001

Total marks for evaluation of PPE001 are 100, which are distributed as:

S.N.	Particulars	Marks Allotted
1.	Practical Performance (*)	50
2.	Log book submission	20
3.	Attitude	5
4.	Attendance	5
5.	Oral exam	20
<b>Total</b>		<b>100</b>
<b>Note:</b> the student should achieve at least 70% marks to be considered mandatory pass in PPE001		

#### (\*) Practical performance includes the following :-

- Distribution of Medication in CP (Community Pharmacy)
- Storage in CP
- Purchasing Methods in CP
- Dispensing of Prescriptions
- Calculation and preparation of Prescriptions
- Dealing with Expired Medicines in CP
- Preceptor and Physician Interaction
- Dealing with OTC
- Dispensing of Controlled Drugs in CP

#### (\*\*) Logbooks

- Each student will be provided with a Logbook at the start of each PPE.
- The main objective of the Logbook is to achieve the goals of PPE.
- Logbook is a manual designed by Dubai Pharmacy College, which is to be filled by the student during Professional Practice.
- Every Student should have her own "Log Book" to write down daily activities, during the PPE.
- College Supervisor will provide the student with the procedure for filling the Logbook.
- The student should submit the Logbook to the College supervisor at the end of her Professional Practice.

## II) Professional Practice Experience in Pharmaceutical Industry (PPE 002)

**It is taken by the students during the second semester of B. Pharm. 4<sup>th</sup> year in Drug manufacturing industries of U.A.E., which should meet the following requirements:**

1. Should apply GMP.
2. Should have manufacturing capacity of all types of pharmaceutical products, a well-developed R & D. section, a good Quality Control department and well-arranged storage facilities.
3. Should have a licensed MOH Pharmacist in Production and Quality Control department.
4. Should be functional and operative.

### **Learning objectives of the Professional Practice in Pharmaceutical Industry are:**

- LO1** Identify the design and set up of a Pharmaceutical Industry
- LO2** Identify the design and set up of a Pharmaceutical Industry.
- LO3** Identify basics in Good Manufacturing Practice.
- LO4** Organize purchase and analysis of the raw materials used in the manufacturing of different pharmaceutical products.
- LO5** Show experience in various Production Units involved in the manufacturing of solid, liquid, semisolid, and sterile dosage forms, etc.
- LO6** Identify the packaging and storage of manufactured pharmaceutical products.
- LO7** Show knowledge about quality control, quality assurance and validation of manufactured pharmaceutical products.
- LO8** Show an experience of working in quality control laboratories having sophisticated instruments like HPLC, GC, and Mass Spectrophotometer etc.
- LO9** Describe the product and development work going on in R & D labs of the Industry.

### **Supervisors for Professional Practice in Pharmaceutical Industry**

Professional Practice in the Pharmaceutical Industry is monitored under supervision of:

1. College Supervisor: one of the members of Students Professional Practice Experience Unit.
2. Industry Supervisor: in the drug manufacturing industry.

### **Responsibilities of Industrial PPE Supervisors**

#### **a. College Supervisor**

1. To prepare a list of students eligible for Professional Practice.
2. To send the list of students to the Industry Supervisor.
3. To co-ordinate with the Industry Supervisor for:
  - Student's transportation from College and hostels to Industry and back.
  - Monitoring the Professional Practice program.
  - Solving any problem hindering proper Professional Practice.
4. To prepare a monthly report about Professional Practice of students for review by the College Academic Council.
5. To evaluate students PPE depending on professional reports supplied by them.

#### **b. Industry Supervisor:**

1. To receive a list of students sponsored for Professional Practice.
2. Send a list of enrolled students to the College Supervisor.
3. To prepare a Professional Practice program meeting the following requirements,
  - a. To identify the Units in the Industry where Professional Practice will take place as per the prescribed schedule.



- b. To identify the person responsible for marking the attendance of students during Professional Practice.
- c. To determine the mode of Professional Practice and appoint the person responsible for monitoring the program.
- d. Fulfillment of 100 hours Professional Practice in the Industry.
- e. To give each student a copy of Professional Practice program.
4. To submit a report to the College Supervisor about the students' attendance.
5. To submit a report on students assessment to the College Supervisor at the end of Professional Practice in Pharmaceutical Industry.

### Evaluation of students receiving Industrial PPE 002

Total marks for evaluation of Industrial PPE002 are 50, which are distributed as:

S. No.	Particulars	Marks Allotted
1.	Experience of stores for raw materials and finished products	05
2.	Production for solid, semi-solid, liquid and sterile dosage form.	05
3.	Quality control and Quality assurance	05
5.	Attendance	05
6.	Professional report supplied about student	10
7.	Written test	20
<b>Total</b>		<b>50</b>

### III) Professional Practice in Hospitals (Advanced PPE 003)

#### Professional Practice in Hospitals (Advanced PPE 0031)

It is taken by students in first semester of B.Pharm. fourth year and under course heading PPE0031. Hospital training is taken in hospitals under Dubai Health Authority (DHA). The hospitals are selected by the PPE Coordinator and it should meet the following requirements:

- a. Ministry of Health, U.A.E. or, Dubai should have approved the hospital.
- b. All activities related to patients must be computerized.

#### Learning Outcomes of Advance Professional Practice Experience (PPE0031)

LO1- Effective use of electronic medical records and other technology-based systems or paper-based medical records, to analyze data used in patient care

LO2-Effective use of confidential hospital patient medical health information in accordance with hospital rules and policies

LO3- Review patient clinical data including medication profiles

LO4- Drug regimen review and therapeutic recommendations

LO5-Interpret the laboratory tests results and recommend other investigations required for the diagnosis and monitoring of drug treatment within included disease areas

LO6- Categorize the patient's drugs related needs and different types of patients' treatment related problems.

LO7- Identify, evaluate, solve and prevent drug-related problems

LO 8- Design and develop the therapeutic plan, follow-up and outcome monitoring required to facilitate continuity of patient care process.

LO9-develop and formulate pharmaceutical care plans and conduct effective counseling to the patients

LOC10: Communicate with health care professionals for effective resolution of drug therapy problems

LOC11: Interact with other health care professionals.

### **PPE0031 Course activities:**

The course consists of both hospital rotations and case discussion sessions (PBL). Students will gain an understanding of rational drug therapy in the treatment of selected diseases; problems associated with implementing rational drug therapy; and the monitoring tools necessary for evaluation of drug therapy. Students will be expected to correlate the findings of case study with the drug therapy and disease.

Students are assigned to subgroups each of 4-5 students throughout the course. This (PPE0031) course is conducted on weekly basis according to the following schedule: Clinical Activity including Hospital Visit/ rotation for 12 weeks in different wards such as, Internal medicine ward, Pediatric ward, ICU ward, CCU ward and Gynecology ward, etc followed by Case Discussion in (PBL).

### **Supervision of PPE0031**

**Advance Professional Practice Experience** PPE is carried out under the supervision of the College supervisors (Members staff in clinical pharmacy and pharmacotherapeutics Department) and a supervisor at PPE site .

### **Responsibilities of advanced PPE0031 Supervisors**

#### **a. College preceptor at PPE site**

1. To prepare a list of students eligible for advanced Professional Practice.
2. co-ordinate for Student's transportation from College and hostels to hospital and back.
3. Monitoring the Professional Practice program and arranging the student rotation schedule
4. Marking the attendance of students during Professional Practice and report to the College Supervisor about the students' attendance
5. Orient student to site, policies, and procedures
6. Provide on-going feedback.
7. Direct the students and monitor the students to record assigned patient database information, drug therapy problems, monitoring, parameters, recommendations, and follow-up
8. Direct student to different readings resources.
9. Full responsibility for supervision of the students
10. Ensure the students does not access the patient record independently.

11. Make the students aware of the confidential nature of information concerning patients, hospital personnel or other confidential types of hospital information.
12. Ensure that all students Sign a privacy and confidentiality declaration provided by the hospital site.
13. Notify faculty of concerns about student's behavior, work, or progression.

**b. College Supervisor:**

Meet with college supervisor in weekly basis after the rotation for complete case discussion or case presentation session

**c. PPE site Supervisor:**

1. To receive a list of students sponsored for advanced Professional Practice.
2. Organize the training program and student distribution in different wards
3. Receive the Signed privacy and confidentiality declaration.
14. Organize orientation lectures for the students by training coordinator and member of infection control and safety.

**Evaluation of student's performance:**

Preceptor from Dubai Pharmacy College (DPCG) will be guiding the students throughout their training. Before the rotation begins, the preceptor and the student should meet and review the rotation sites, goals and objectives, students' performance expectations and criteria to measure performance. During a rotation, the preceptor will orient student to site, policies, and procedures, assess the student's performance, assess the selected clinical cases and direct student to reading resources.

After the rotation the assessor will evaluate each group of students based on the evaluation criteria

The rotation goals and objectives communicate that the students are expected to provide patient care successfully in the clinical setting.

**Evaluation of students receiving PPE0031**

S. No.	Particulars	Marks Allotted
1.	Case Discussion (PBL) & Case Presentation	50
2.	Attendance	10
3.	Attitude	5
4.	Case Reports or Case Manual	15
5.	Case Based Exam	20
6.	Total	100

### **Professional Practice in Hospitals (Advanced PPE 0032)**

Generally It is taken by students in 2<sup>nd</sup> semester of B.Pharm. 4<sup>th</sup> year and under course heading PPE003. Hospital training is taken in different hospitals of Dubai Health Authority (DHA) and primary health care centers.

Due to COVID 19 Pandemic Situation, Hospital training was offered online based on the suggestions and Guidance from Ministry of Education, UAE. Pharmacist Skill and competency based areas were selected and offered for students for 10 weeks. From 8.00 am to 5.00 pm.

Learning outcomes were amended based on the areas of training selected.

Area of training Selected:

- i. Patient History taking, Patient Assessment & Pharmaceutical Care Plan
- ii. Pharmacy Simulation
- iii. Total Parenteral Nutrition
- iv. OTC Medication
- v. Communication Skills & Counselling for Pharmaceutical Device
- vi. Drug Information Services

(separate documents attached for each area of training)

### **Mapping of Pharmacist Skills and Competencies**

<b><u>S.No</u></b>	<b><u>Pharmacist Skills and Competencies</u></b>	<b><u>Area 1</u></b>	<b><u>Area 2</u></b>	<b><u>Area 3</u></b>	<b><u>Area 4</u></b>	<b><u>Area 5</u></b>	<b><u>Area 6</u></b>
<b>1.</b>	<b>EXPERTISE IN MEDICATIONS AND DRUG DISTRIBUTION</b>						
	i. Medication/drug expertise – provide patient care	X	X		X	X	X
	ii. Medication/drug expertise – provide drug information		X		X	X	X
	iii. Medication/drug expertise – drug distribution/supply		X		X		
	iv. Medication/drug expertise – manage pharmacy		X		X		
	v. Medication/drug expertise – educate patients, students, pharmacy team		X		X	X	X
	vi. Medication/drug expertise – knowledge application and research	X			X	X	X
	vii. Document practice activities	X	X		X	X	X
<b>2.</b>	<b>COLLABORATION AND COMMUNICATION</b>						
	i. Collaboration with pharmacy team and other professionals	X		X	X	X	X
	ii. Communicate effectively with patients, pharmacy team, other professionals and public	X		X	X	X	X
<b>3.</b>	<b>SAFETY AND QUALITY</b>						

	i. Undertake/ continuing professional development			X	X		X
	ii. Quality assurance and quality improvement	X			X		X
	iii. Risk management and patient safety	X		X	X	X	X
4.	<b>PROFESSIONALISM AND ETHICS</b>						
	i. Act with professional integrity, respect, empathy and responsibility						
	ii. Self-Awareness	X			X	X	X
	iii. Patient-centered care and professional patient relationship, privacy of information	X		X	X	X	X
	iv. Cultural sensitivity	X			X	X	X

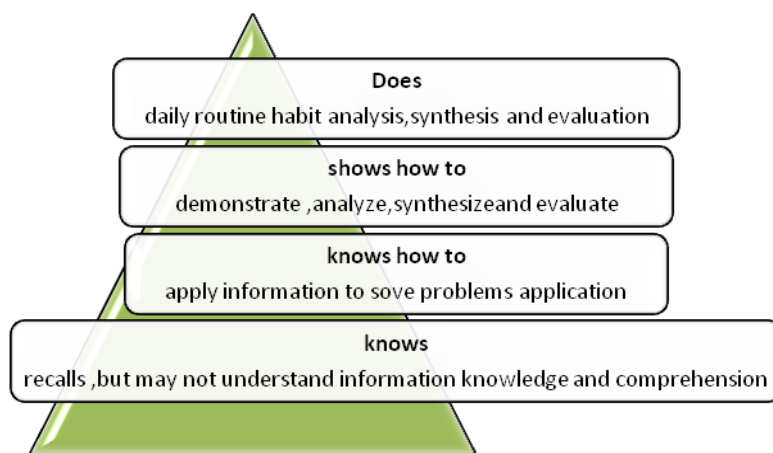
#### **Learning Outcomes of Advance Professional Practice Experience (PPE0032)**

- LO1** Evaluate prescription drug order for completeness, accuracy of dosing, route of administration, drug-drug interaction and drug-disease interaction
- LO2** Apply calculations required for compounding, dispensing and administering medications with proper conversions between metric, and apothecary system of weights and measures
- LO3** Practice proper prescription checking, pricing, preparing, labelling, and storage
- LO4** Identify all functions of dispensing and labelling modules in electronic pharmacy system
- LO5** Apply guidelines and standards of practice for preparation, storage, in process quality control, and administration of parenteral nutrition products in various pharmacy practice settings
- LO6** Resolve prescription problems regarding questionable or unclear medication orders and explain any medication errors such as missed doses, incorrect doses, or incorrect drugs.
- LO7** Detect medication errors, adverse drug reactions and drug interactions
- LO8** Analyze and resolve problems associated with patient drug therapy
- LO9** Communicate effectively with patients(preceptors act as patients and evaluators) and provide proper patient counselling with appropriate terminology
- LO10** Establish a prospective therapeutic management plan that includes therapeutic endpoints, monitoring parameters, individualization of dosages, and patient counselling.
- LO11** Assess patient medication needs on discharge patients solving the problems such as drug and dosage discrepancies, where prescriptions should be filled, and when prescriptions are needed
- LO12** Communicate effectively with other members of the health care team on topics such as therapeutics, drug information, policies and procedures, and patient planning needs.

#### **Student activities during the round:**

1. Review patient medication therapy regularly before online session with the preceptors in terms of indication, dosage, route, duration, efficacy and toxicity.
2. Obtain information to update and correct the medication profile.
3. Formulate and documents a list of problems for new or existing patients seen by the service. The list should focus on disease, drug, or socioeconomic factors.
4. Attend online sessions on a consistent basis and communicate with the preceptors and peers on the following information:
  - a. Patient's current medication use.
  - b. Observed subjective or objective signs of efficacy or toxicity.
  - c. Drug distribution problems (non-formulary status or medication not ordered for a newly admitted patient)

- d. Prospective therapeutic management plans for patient problems (i.e., change of therapy, discontinuance of medication, change of pain medication, use of prophylactic antibiotics, and identification of therapeutic alternatives).
5. Attend online sessions and gather the following information:
  - a. Subjective and objective data for monitoring a patient's medication therapy.
  - b. Changes in patient status (condition improved or worsened), discharge date, surgery, diagnostic procedures and results of procedures.
  - c. Changes in nondrug therapy (i.e., dietary changes, socioeconomic conditions, or physical therapy).
  - d. Patient's understanding of medication, name strength and expected benefits and toxicities.
  - e. Projected discharge needs including any special counseling.
6. At the end of every online session, the students and their supervisors/preceptors had a lecture regarding the cases they received and discuss any modification or to clarify any doubt.



This figure describes four levels of ability that a student must achieve to provide patient care. The lowest level of this triangle is "knows" this tier infers that a student can recall knowledge gained during classroom courses and the rotations. Goals and objectives describing this level will be statement such as "The student can describe symptoms, pathophysiology, laboratory tests, physical examination, prognosis and diagnosis of acute and chronic diseases. The other verbs that could be used in this statement to describe how to use the knowledge gained during class rooms

#### Evaluation of students receiving PPE0032

S. No.	Particulars	Marks Allotted
1.	Case Discussion (PBL) & Case Presentation	50
2.	Attendance	10
3.	Attitude	5
4.	Case Reports or Case Manual	15
5.	Case Based Exam	20



6.	Total	100
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**Overall Evaluation of PPE**

S. No.	Particulars	Marks Allotted
1.	Introductory PPE001	100
2.	Industrial PPE002	50
3.	Advanced PPE003	200
	Total	350



## **Appendix B**

### **Student Graduation Project**



## Introduction

The students in the fourth year of B. Pharm. submit a small thesis of the research project based on all round knowledge they have acquired in the main areas viz. Clinical Pharmacy, Pharmacy Practice, Pharmaceuticals, Pharmacology, Pharmaceutical Chemistry and Natural Products. This project includes a research work, which the students carry out in a group of 3/4. Students may submit her preference to the Head of Faculty Development and Research Unit by the end of sixth semester. They have a choice of choosing bench research from subjects like phytochemistry, pharmaceutical chemistry, pharmacology, and pharmaceuticals; or can do survey based on data collected from hospitals, community in subjects related to clinical pharmacy; or can write a review article.

**Prerequisites:** Successfully completed all the courses of first, second, third, fourth, fifth and sixth semesters.

### Learning Outcomes:

**On successful completion of Graduation project, students should be able to:**

- LO1** Investigate research problems and experiment new ideas in concurrence with the goals of the College.
- LO2** Evaluate literature critically and relate research findings with reported literature
- LO3** Perform various experiments and research design as a team and evaluate the appropriateness of procedures in research.
- LO4** Predict conclusions from the research findings and organize/report research findings in form of project.
- LO5** Defend research work to the panel of experts and present research findings at various scientific platforms.

### Role of Advisor:

The student's research Advisor holds the primary responsibility for providing the appropriate guidance and counsel essential to the scholarly development of the student. Based on the research interest and mutual consent of both students and advisor, each student is allocated to specific research supervisor at the end of the sixth semester. The advisor shall supervise the student's research work and dissertation preparation and will chair the examining committee for the students' defense of their dissertation.

- 1) **Completion of the Graduation Project:** Completion of the Graduation project, involves a number of steps, which are as follows:

**a) Selection and registration of topics for B. Pharm Graduation Project:** The selection and registration of topics for the BPharm Project are done accordingly as mentioned below:

- i. Collection of project topics from the faculty members.
- ii. Approving the project topics by Research and Ethical committees.
- iii. Announcing the project topics by Faculty Development and Research Unit in the sixth semester.
- iv. Selection and registration of projects topics by the student in groups of 3 or 4 students in each group latest by the 30<sup>th</sup> of June.



v. Research project guided by faculty supervision latest by the 10<sup>th</sup> of July.

**b) Facilities, Experimental work and data collection for the Graduation Project.** The experimental work, collection of data for the project and writing of the dissertation of the project are done by the students with the help of the facilities made available by Dubai Pharmacy College. These facilities are:

- Science Laboratories of Dubai Pharmacy College.
- Science Laboratories of Dubai Medical College for Girls.
- Instrumentation facilities of Central Laboratory of the Foundation.
- Public and/or private hospitals under the Ministry of Health.
- Pharmaceutical Companies.
- Community Pharmacies.

**Facilities for writing of the project:** The College provides sufficient facilities to the student for efficient writing of the Research Project dissertation.

Various facilities provided by D P C are:

- Drug Information Center
- Central Library
- IT facilities

Others:

- Library of Dubai Health Authority Hospitals.

**c) Organization of Graduation Project:** The Graduation project should be assembled in the order listed below:

1. Title page
2. Declaration and copyright statement
3. Abstract (required; 250 words or less for the bachelors project; double-spaced and organized as statement of the problem, procedure and/or methods, results and conclusions).
4. Acknowledgments (optional)
5. Table of contents
6. List of tables (if appropriate)
7. List of figures (if appropriate)
8. Text (main body of project)- Introduction, Materials, Apparatus and Techniques, Methods, Results and Discussion, Conclusion and Recommendation( not more than 20-25 pages)
9. Appendix or appendices (if appropriate)
10. Endnotes (if compiled at the end of the text)
11. Bibliography



The design of the **cover page** of the Project dissertation should be as shown:

Title
-----
<b>Graduation Project</b>
Presented by
-----
Towards partial fulfillment forth Degree
<b>Bachelor of Pharmacy</b>
Under the Supervision of
-----
Department of .....
<b>Dubai Pharmacy College for Girlsfor Girls</b>
Dubai, UAE
20 -20

**Margins:** For copying and binding purposes, every page of dissertation must be left 1.25"; top, right and bottom 1". Margins must be left justified. All manuscript materials must fit within these margin requirements (including tables, headers and footers, figures, graphs and page numbers).

When full-page prints of photographs are desired, the image area of the print must conform to the same margins as the text.

**Spacing:** The dissertation, including the abstract, dedication, acknowledgements, and introduction, must be double-spaced. Footnotes, bibliographies, long quoted passages, as well as items in lists, tables, and appendices may be single-spaced. Dissertation must be printed on one side of the paper.

**Pagination:** The title page should be lowercase Roman numeral "i" but not typed. Subsequent pages should be typed as "ii, iii," etc., until the dissertation proper is reached. The first page of the dissertation proper is Arabic "1" and repeats the title only. Pagination appears within the one-inch margin, recommended 3/4" from the bottom edge of the paper, centered.

**Style and Documentation:** Style and techniques of presentation including documentation, should correspond to standard practices employed in the scholarly field of the dissertation. Generally acceptable are the documentation styles in The Chicago Manual of Style (University of Chicago Press); The MLA Handbook for Writers of Research Papers (published by the Modern Language Association of America); or

the Publication Manual of the *American Psychological Association*. Each candidate should resolve all questions of style and technique with her adviser before preparing the final copy.

**All the above mentioned points are discussed with the concerned Supervisor. Rough copy is to be checked and approved from the Supervisor before the final copy is made.**

## 2) Submission of the Graduation Research Project for Evaluation

- i. Five copies of the Project dissertation are submitted to the Head of Faculty Development and Research Unit, latest by 10<sup>th</sup> June.
- ii. An Evaluation Committee for the Project is formed by the Dean in consultation with the College Academic Council for the evaluation of the Project. The Evaluation Committee consists of the following:
  - a. A panel of external examiners
    - One expert in the related field of research
  - b. A panel of internal examiners
    - Dean or Head of the concerned Department
    - Supervisors of the Graduation Project
- iii. The students have to present their Project work in front of the members of the Evaluation Committee. The evaluation of the Project is done during 1<sup>st</sup> July to 10<sup>th</sup> July.
- iv. The evaluation is in the form of an oral presentation by the candidate. The distribution of marks (100) is as follows:

Dissertation Writing	25 Marks
Presentation	25 Marks
Oral exam	25 Marks
Published or accepted in an indexed Journal or Conference is an added advantage.	25 Marks
<b>Grand Total</b>	<b>100 Marks</b>

The following evaluation tool (rubric) is used in dissertation and defense evaluation.

Dissertation & Defense Evaluation	Does Not Meet Expectations (0-50)	Meet Expectations (50-70)	Exceeds Expectations (70-100)
<b>Aims</b>	Limited expansion upon previous research Limited theoretical or applied significance	Builds upon previous research Reasonable theoretical or applied significance Reasonable publication impact	Greatly expands previous research Exceptional theoretical or applied significance

	Limited publication impact		Exceptional publication impact
<b>Introduction/ Literature</b>	Little evidence of relevant and current literature. The review of the literature is fragmented and incoherent. Little or no critical appraisal of the literature.	Good evidence of literature having been reviewed. Good attempt to critique existing literature, but the link to this project could be stronger.	Excellent coverage of relevant literature from a range of sources and journals. Highly developed critique of existing literature and it is clearly linked back to the relevance of the chosen topic.
<b>Method</b>	Choice of method is unclear or not justified. Description of method is unclear and inadequate. Choice of data analysis is inappropriate for the study.	Method is appropriate, with good justification provided for it. Key aspects of the method are described but with some minor omissions or lack of detail. Appropriate choice of data analysis with a good justification for that choice.	Method is appropriate, with excellent justification provided. All aspects of the method are described in excellent detail. Sophisticated choice of data analysis accompanied by excellent justification for that choice.
<b>Results</b>	Presentation of data / results is unclear and inappropriate. Analysis of data is inappropriate or superficial. Analysis contains significant inconsistencies.	Presentation of the data /results is generally clear. Analysis of the data is appropriate but limited. Analysis contains some minor inconsistencies or inaccuracies.	Presentation of the data / results is exceptionally clear. Analysis is appropriate, thorough, and possibly innovative. Analysis contains no inaccuracies or inconsistencies.
<b>Discussion/ Conclusions</b>	Unsubstantiated or invalid interpretation of results. Little or no linking to theory or literature. Limitations of the research are not discussed or are incorrectly outlined. Considerations for further research are not discussed.	Good interpretation of results in relation to the study's aims. Clear references to theory and literature. Limitations of the study are addressed appropriately. Good discussion of possibilities regarding future research.	There is excellent interpretation of results in relation to the study's aims. There are excellent references to theory and literature. Limitations of the study are very well addressed. Excellent discussion of possibilities regarding future research.
<b>Presentation/ Referencing</b>	Formatting is frequently erroneous or inconsistent.	There are some errors and inconsistencies in formatting. There are some errors regarding language, grammar, and spelling.	Formatting is consistent, error free, and impressive.

	There are frequent and major errors regarding language, grammar, and spelling. A non-standard or non-approved referencing system was used and/or there are major errors in referencing both in the text and within the reference list.	A recommended referencing system is used but with a number of errors either in the text or in the reference list.	Language, grammar, and spelling are correct and appropriate throughout the dissertation. A recommended referencing system is used correctly and consistently throughout the dissertation.
<b>Oral presentation and defense of dissertation</b>	Does not adequately defend research; does not answer key questions; frequently shows a need for deeper reflection on vital points; Reads the material from presentation to make the report and is clearly not comfortable with the topic.	Adequately defends research; answers questions, but often with little insight; frequently shows a need for deeper reflection on minor points; Relies too much on presentation and has difficulty speaking freely to the audience, and is somewhat comfortable with the topic.	Masterfully defends research by providing clear and insightful answers to questions; uses presentation resources as a guide, gives detailed explanations, is easily understandable, and keeps appropriate eye contact with the audience.

### Marking Scheme

Item	Score out of 100	Weighting	Percentage
<b>Aims</b>		<b>X0.05</b>	
<b>Introduction/Literature</b>		<b>X0.2</b>	
<b>Method</b>		<b>X0.1</b>	
<b>Results</b>		<b>X0.1</b>	
<b>Discussion/Conclusions</b>		<b>x0.3</b>	
<b>Presentation/Referencing</b>		<b>x0.05</b>	
<b>Defense</b>		<b>x0.2</b>	
<b>Total</b>			<b>100</b>

If one or all the examiners decided that the dissertation does not meet the requirements for the degree (failed to obtain minimum 70%), a bachelor's student will not graduate. However, the student has the option to revise and resubmit a failed dissertation within two months after which it is assessed again through the same procedure.

In cases where plagiarism in the dissertation is alleged, the dissertation examination process does not proceed any further and the case is investigated through DPCG disciplinary processes.

## Placement of Alumni







DPCG FACULTY MEMBERS			
Name	Degrees	Institution	Year
<b>Prof. Dr. Saeed Ahmed Khan</b> Dean, Professor and Head Pharmaceutical & Medicinal Chemistry Department	M. Sc (Chemistry) M. Phil. (Chemistry) Ph. D. (Chemistry)	Aligarh Muslim University (India) Delhi University (India) Delhi University (India)	1980 1982 1985
<b>Prof. Dr. Naglaa Gamil</b> Chief Academic Officer Professor, Natural Products	B.Pharm M.Pharm. (Pharmacognosy) Ph.D.(Pharmacognosy & Phytochemistry).	Cairo University (Egypt) Cairo University (Egypt) Cairo University (Egypt)	1991 1998 2004
<b>Prof. Dr. Aliasgar Fakruddin Shahiwala</b> Graduate Program Director Professor in Pharmaceutics	M.Pharm. Ph. D. (Pharmacy) Postdoctorate	M.S.University (India) M.S.University (India) Northeastern University (USA)	1999 2005 2007
<b>Prof. Mirza Baig</b> Head, Clinical Pharmacy and Pharmacy & Pharmacotherapeutics Department Professor in Clinical Pharmacy	MPharm PhD (Clinical Pharmacy)	RGUHS, India University Science Malaysia	2003 2011
<b>Prof. Bazigha K. Abdul Rasool</b> Head, Research, Laboratories and Facilities Professor in Pharmaceutics	Ph.D. (Pharmaceutics) M.Sc. (Pharmaceutics) B. Pharm (Pharmacy Sciences)	University of Baghdad, (Iraq) University of Baghdad (Iraq) University of Baghdad (Iraq)	2004 1998 1990
<b>Dr. Fazilatun Nessa</b> Associate Professor in Pharm.& Medicinal Chemistry	B.Pharm M.Pharm(Pharmaceutical Chemistry) Ph.D. (Pharmaceutical Chemistry )	University of Dhaka (Bangladesh) University of Dhaka (Bangladesh) University Sains Malaysia(Malaysia)	1989 1991 2004
<b>Dr. Gazala Afreen Khan</b> Head, Examination and Evaluation Unit Assistant Lecturer Medical Science Department	M. Sc (Genetics) Ph. D. (Molecular Genetics)	Osmania University (India) Osmania University (India)	1998 2004
<b>Dr. Hanan</b> Head of Faculty Development and Research Unit Assistant Professor in Pharmacology	M. Sc. (Pharmacology & Toxicology) Ph.D. (Pharmacology & Toxicology)	Mansura University (Egypt) Mansura University (Egypt)	2010 2017
<b>Dr. Ammar</b> Head, Professional Practice Experience Unit Assistant Professor in Clinical Pharmacy	MPharm (Pharmacy) PhD (Clinical Pharmacy)	Jamia Hamdard, India University Science Malaysia	2011 2018
<b>Mrs. Sabeena Salam</b> Assistant Lecturer in English	M.Phil. (English for Specific Purposes) B.Ed (English) CELTA	Pondicherry University (India) Calicut University (India) University of Cambridge (Dubai)	1995 2002 2007





DPCG FACULTY MEMBERS			
Name	Degrees	Institution	Year
<b>Mrs. Doaa Kamal</b> Assistant Lecturer in Clinical Pharmacy	M.Sc. (Clinical Pharmacy) BPharm	Jordan University (Jordan) Dubai Pharmacy College (UAE)	2010 2002
<b>Mrs. Rana Sammour</b> Assistant Lecturer	Msc. Pharmaceutical Technology BPharm	Ajman University of Science and Technology Dubai Pharmacy College UAE	2013 2003
<b>Ms. Yousra Adnan</b> Assistant Lecturer	BPharm	Dubai Pharmacy College (UAE)	2006
<b>Ms. Eiman Shams Elddin Elgailani</b> Assistant Lecturer	MPharm Clinical Pharmacy BPharm	Dubai Pharmacy College UAE Dubai Pharmacy College UAE	2015 2005
<b>Ms. AlZahraa Mahmoud Hussain</b> Assistant Lecturer	MPharm Pharmaceutical Product Development BPharm	Dubai Pharmacy College UAE Dubai Pharmacy College (UAE)	2016 2008
<b>Ms. Khuloud Abu Shawish</b> Teaching & Research Assistant.	BPharm	Dubai Pharmacy College	2014
<b>Ms. Leen</b> Teaching Assistant	BPharm	Dubai Pharmacy College	2019
<b>Ms. Samer</b> Teaching Assistant	BPharm	Dubai Pharmacy College	2019
<b>Ms. Yasmeen</b> Teaching Assistant	BPharm	Dubai Pharmacy College	2019
<b>Ms. Suzan</b>	Master of Science	Mahatma Gandhi University	2004
<b>Ms. Doua Mohamad Osman</b> Lecturer in Psychology	Bachelor's Degree in the School of Psychology	Alahfad University for Women (Sudan)	2008

FACULTY from DMCG	
<b>Dr. Shifaan Khanday</b> Assistant Professor in Anatomy	<b>Prof. Dr. Hafez</b> Professor in Biochemistry.
<b>Prof. Dr. Abeer Abdel Moneim</b> Professor in Physiology	<b>Prof. Dr. Naglaa Raafat Abdl Raob,</b> Professor in Biochemistry.
<b>Dr. Rasha</b> Associate Professor in Physiology	<b>Prof. Samia</b> Professor in Psychology
<b>Dr. Riham</b>	<b>Prof. Ghazala Mehdi</b>



Assistant Professor in Pathology	Professor in Pathology
<b>Dr. Wafiq Shafiq</b> Head, Educational Informatics Unit, Lecturer in Informatics	

#### PART – TIME FACULTY

<b>Mrs. Farzana Firdouse</b> Lecturer in Computer Applications and mathematics	<b>Prof Jinan</b> PhD (UK) Assistant Professor in Islamic Studies
<b>Dr. Mariem Galadari</b> Lecturer in Pharmacy Laws	Cairo University

#### SUPERVISORS FOR PROFESSIONAL PRACTICE EXPERIENCE

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