

# كلية دبي للصيدلة Dubai pharmacy college



Dubai Pharmacy College is officially licensed and accredited by the Ministry of Higher Education and Scientific Research of the United Arab Emirates to award Bachelor of Pharmacy degree in higher education



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 2017-2018 (1438-1439)									
First Semester									
Event Day Dates Date / Hijri									
Beginning of 1st Semester	Monday	4/09/2017	12/12/1438						
Orientation & Beginning of M. Pharm 1st Semester classes	Friday	08/09/2017	16/12/1438						
Beginning of 1st Year classes and Welcome Ceremony	Sunday	10/09/2017	18/12/1438						
Mid- Semester Exams; 1st,2nd and 3rd years	Sunday	22/10/2017	01/02/1439						
Beginning of Final Exams of 4th year	Thursday	30/11/2017	11/03/1439						
Winter Vacation	Sunday to Saturday	24/12/2017 to 06/01/2018	05/04/1439 to 19/04/1439						
Beginning of Final Exams for 1st, 2nd and 3rd years	Sunday	07/01/2018	20/04/1439						
Beginning of Final Exams for M. Pharm 1st & 3rd Semester	Friday	05/01/2018	17/04/1439						
Beginning of Re-sit Exams for 1st, 2nd and 3rd years	Sunday	04/02/2018	18/05/1439						
End of First Semester									
Second Semester									
Beginning of 2nd Semester for 4th Year	Sunday	07/01/2018	20/04/1439						
Commencement of Classes for M. Pharm 2nd Semester	Friday	9/02/2018	23/05/1439						
Commencement of Classes for 1st, 2nd and 3rd years	Sunday	11/02/2018	25/05/1439						
Spring Vacation	Sunday to Saturday	25/03/2018 to 31/03/2018	08/07/1439 to 14/07/1439						
Beginning of Final Examination of 4th year	Sunday	01/04/2018	15/07/1439						
Beginning of Mid- Semester Exams; 1st,2nd and 3rd year	Sunday	01/04/2018	15/07/1439						
Beginning of Hospital Training for 4 <sup>th</sup> year	Sunday	22/04/2018	06/08/1439						
Beginning of Final Examinations for 1st, 2nd and 3rd years	Sunday	03/06/2018	19/09/1439						
Beginning of Final Exams for M. Pharm 2nd Semester	Friday	08/06/2018	24/09/1439						
Announcement of all results	Saturday	07/07/2018	23/10/1439						
Beginning of Re-sit Exams	Sunday	08/07/2018	24/10/1439						
Summer Vacation Begins	Sunday	22/07/2017	09/11/1439						



Events				
Event	Date			
Islamic New Year	Saturday, 30 <sup>th</sup> September, 2017			
Student Leisure Trip- 1	3 <sup>rd</sup> or 4 <sup>th</sup> week of November, 2017			
Martyr's Day	Thursday, 30 <sup>th</sup> November, 2017			
UAE National Day	Saturday 2 <sup>nd</sup> December& Sunday 3 <sup>rd</sup> December, 2017			
New Year's Day Monday, 1 <sup>st</sup> January, 2018				
Prophet's Birthday Thursday 30 <sup>th</sup> November, 2017 (11th Rabi- Al Awal)				
Isra Wal Miraj	Thursday 12 <sup>th</sup> April, 2018 (16th Rajab)			
Student Leisure Trip- 2	3 <sup>rd</sup> or 4 <sup>th</sup> week of April, 2018			
End of Year Ceremony	2 <sup>nd</sup> or 3 <sup>rd</sup> week of May, 2018			
Eid Al Fitr Holiday	Friday, 15 <sup>th</sup> June 2018to Sunday, 17 <sup>th</sup> June, 2018			
* <b>Note</b> : Islamic holidays are determined afte the calendar	r sighting of the moon. Thus actual dates may not coincide with the dates in			

\*\* Beginning of Academic Year 2018-2019 will be on: Sunday 02/09/2018

# Index

Contents	Page
Message from : Haji Saeed Bin Ahmed Al Lootah, Founder &Chairman	6
: Prof. Dr. Saeed Ahmed Khan, Dean	7
History of DPC	8
Vision and Mission	9
Statement of Accreditation and Licensure	9
Organizational Structure	10
1. Program Details	11
2. Admission Requirements	11
3. Student Intake and Fee Structure	15
4. Prospective Careers	17
5. Program Objectives and Outcomes	18
5.A. General Education Program	18
5.B. BPharm Program	20
6. Study Plan	21
6.1. Distribution of Courses per Academic Year	22
7. Courses of Study	24
8. Course Description for BPharm program	25
9. Examination, Grading & Assessment	32
9.1.Scheme of Assessment	35
9.2. Seminar Rubrics	37
<b>10.</b> Teaching Activities (Pedagogy)	38
<b>11.</b> Progress Policy Guidelines for the B. Pharm Program	40
<b>12.</b> Policy for Completion of Undergraduation	40
13.Students Rights and Responsibilities	41
<b>14.</b> Students Appeal Policy	42
<b>15.</b> Students Grievance Policy	42
<b>16.</b> Education Support Facilities	43
<b>17.</b> Student Support Services	45
<b>18.</b> Glossary of Terms	46
Appendix A (Professional Practice Experience)	48
Placement of DPC Alumni	59
DPC Faculty Members	60





# 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 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 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 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, DPC 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 DPC program will learn to work collaboratively with other healthcare practitioners to help patients manage their medication regimens.

Early practice experiences will help DPC 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 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, DPC 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.

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# HISTORY of DUBAI PHARMACY COLLEGE

The year 2013 is a proud moment in the history of Dubai Pharmacy College (DPC) 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 DPC 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, DPC 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 received 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, *DPC 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 DPC 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 DPC one of the leading institutions for the pharmacy education in the world."

# Mission

"DPC 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 offers the following degrees:

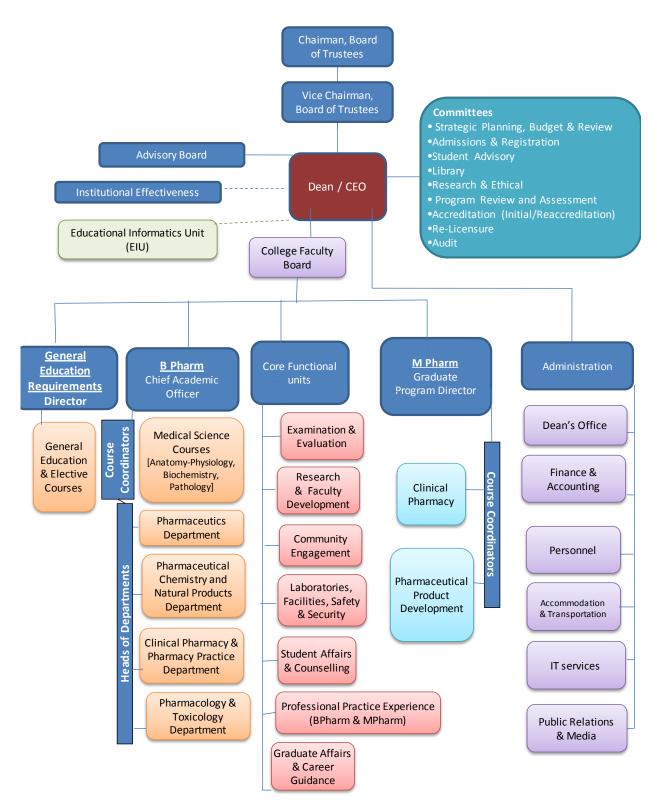
- **I.** Bachelor of Pharmacy
- **II.** Master of Pharmacy<sup>\*</sup> with specialization in
  - Clinical Pharmacy
  - Pharmaceutical Product Development

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

\*Initial Accreditation awarded for the Masters of Pharmacy program



# **DPC Organizational Structure**



# 1. Program

INSTITUTION:	Dubai Pharmacy College, Dubai, UAE
DEGREE:	Bachelor of Pharmacy
LENGTH & MODE:	Four academic years, Full time
ACADEMIC PERIOD:	Mid- August to Mid-July
MAXIMUM	6 years
<b>REGISTRATION PERIOD:</b>	-
Chief Academic Officer:	Prof. Naglaa Gamil

# 2. Admission Requirements

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

Linglish language	requirements as outlined below:
Academic	Applicants from a high school following the U.A.E. curriculum must have:
<b>Requirements:</b>	• The UAE High School Certificate – Science Stream (or equivalent) is required with
	an average score of 80% or more.
	If you come from a high school following an International curriculum must have
	• 12 years of school in Science Stream (or equivalent) with a minimum 80% or
	more.
	• Equivalency certificate for a High School Certificate obtained abroad from
	UAE Ministry of Education.
	Additional Requirements:
	<ul> <li>Students of GCSE/IGCSE curriculum 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 International Baccalaureate Diploma 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> <li>Standard or Higher level Math</li> <li>Standard or Higher level Biology</li> <li>Standard or Higher level Chemistry</li> </ul> </li> </ul>
English Proficie	ncy Requirements
	All students are required to provide a certificate of English proficiency, such as
	<ul> <li>Internet Based Test (IBT) TOEFL 61 out of 120. TOEFL (PBT) will not be accepted.</li> </ul>
	<ul> <li>International English Language Testing System (IELTS-Academic) 5.0</li> </ul>
	<ul> <li>Cambridge English: Advanced (CAE) with a test score of 41</li> </ul>
	<ul> <li>Pearson Test of English Academic (PTEA) score range of 36-46</li> </ul>
	<ul> <li>City &amp; Guilds IESOL Test score of B1 First Class pass</li> </ul>
	Exceptions are:
	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.

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.

#### **DPC 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 DPC. 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 DPC from other Pharmacy Colleges:

- **1.** Dubai Pharmacy College (DPC) accepts transfer of students from accredited College with a curriculum that is comparable to that offered at DPC.
- **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 requires 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 DPC.
- **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. <u>The student transferring from another accredited college must be in a good academic standing</u> (a minimum CGPA of 2.0, C grade, on a 4.0 scale or equivalent).
- 9. <u>Student applying for transfer to DPC must study more than 60% of the syllabus of B. Pharm at DPC.</u>
- **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.
- 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 DPC 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.
- She should have passed Graduate Degree with<u>a good academic standing (a minimum CGPA of 2.0, C grade, on a 4.0 scale or equivalent).</u>
- **3)** She should apply for admission in B. Pharm. course in DPC 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 application form and attach the required documents with 250/- 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

STODENT INTAKE: Student intake will be infilted to 70 students not exceeding 80 students in total.								
Fees	Total Amount/Year	Mode of Payment						
Tuition*	Dhs45,000 Dhs1100/credit hour	Dhs22,500/- at time of admission Four installments						
Hostel	Dhs12000/- to 18000/-	Four installments with tuition fees.						
Transportation								
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.						

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

#### \*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 as 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 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 DPC 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 reapplying 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

#### **PROGRAM OBJECTIVE**

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.

PROGRAM OUTCOMES							
Quantitative reasoning	Apply mathematical and statistical reasoning to discipline specific problems and decision making						
Communication skills	Interchange ideas and information effectively through writing, speech, and visual and digital media						
Ethical reasoning	Assess and weigh moral beliefs and practices, and their applications to ethical dilemmas						
Technology and Information literacy	Locate, evaluate, cite, and effectively using information						
Diverse perspectives and experiences	Acquire knowledge and analytical skills to understand a variety of perspectives and experiences.						
Critical Inquiry	Systematic questioning and analysis of problems, issues, and claims						
Wellness literacy	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	<b>Program outcome:</b> On successful completion of this program the students will be able to:	Learning/ Teaching Methods and Strategies	Types/ Methods of assessment
Knowledge	<ul> <li>A1. 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.</li> <li>A2. 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.</li> <li>A3.Gain the comprehensive knowledge of biomedical, pharmacokinetics, pharmacodynamics&amp; toxicological principles of medications appropriate to apply in clinical settings.</li> <li>A4. Understand various concepts, policies and procedures related to pharmacy practice in different clinical settings including hospital and community.</li> </ul>	Lectures, Tutorials, Practical, Self-Directed Learning, Seminars, Problem Based Learning	Written Examinations, Practical Reports, Project Report, PBL assessment
Skills	<ul> <li>B1.Acquire the basic skills and techniques involved in drug manufacture and development, drug design and screening, quality control and analysis of pharmaceutical products.</li> <li>B2.Communicate effectively orally and in writing and deploy a range of presentation techniques within workplace setting.</li> <li>B3. Interpret prescription orders, integrate the knowledge of biostatistics and clinical calculations in identifying problems with drug therapy, formulate solutions and assess risk</li> </ul>	Practical classes, Project Work, Workshops, Problem Based Learning, Case studies, Computer Lab	Oral, poster presentation, Seminars, OSCEs, practical and Case based assessment, Project Report



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

	BPharm Program Objectives ma	pping	agains	st Pro	gram	Outco	omes				
	Program objectives Program outcomes										
			Knowl	edge			Skills		Competencies		
		A1	A2	A3	<b>A</b> 4	B1	B2	B3	С	C	С3
1.	Offer a highly motivated educational environment to provide the students with profound knowledge of various fundamental, pharmaceutical and clinical sciences.	V	√	√	√						
2.	Develop the ability of the students to utilize the acquired knowledge to contribute productively in various fields of pharmaceutical and clinical settings.					V		V			
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.								V	V	V

#### 6.Study Plan for the BPharm Program

Dubai Pharmacy College 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 164 hours

Dubai Pharmacy College grants its students, after successful completion, Bachelor's Degree in Pharmacy (B. Pharm.). The total program of Dubai Pharmacy College 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	4%
General Education Courses	5	12	7%
Core requirement	49	132	80%
Professional Practice Experience(PPE)	3	14	9%
Total	60	164	100%

Domain	No. courses	Credit Hours	%
PS-Pharmaceutical Science	18	54	41%
CS-Clinical Science	16	32	24%
PS-Pharmaceutical Science/ CS-Clinical			
Science	4	16	12%
BBS-Basic Biomedical Sciences	8	21	16%
BS-Basic Sciences	3	9	7%
Total	49	132	100%



		6.1.Distribu	ution of Courses				
		FI	RST YEAR				
		First	t Semester				
Code	Domain	Courses	Prerequisite	Corequisite	Lecture	Practical	Total Units
PN701	BS	Organic Chemistry- I	-	-	2	-	2
MC701	BBS	Anatomy and Physiology I	-		3	1	4
GE701	GE	Mathematics	-	-	2	-	2
GE702	GE	English Language and Study Skills	-	-	2	-	2
MC702	BBS	Medical Terminology	-	-	1	-	1
GE703	GE	General Psychology	-	-	2	-	2
GE704		Islamic Studies	-	-	2	-	2
GE706	GE	History of Pharmacy	-	-	2		2
		TOTAL	-	-	16	1	17
	<b>.</b> .		nd Semester	<u> </u>	• •	<b>.</b>	
Code	Domain		Prerequisite		Lecture	Practical	Total Units
CP701	CS	Orientation to Pharmacy	-	-	1	-	1
PN702 PC701	BS PS	Organic Chemistry- II Physical Pharmacy	PN701	-	3	1	4
MC703	BBS	Anatomy and Physiology-II	-	-	3	1	4
PN703	PS	Natural Products-I	-		2	1	3
PC702	PS	Pharmaceutical Calculations	GE701	-	2	1	2
PN704	BS	Analytical Chemistry	01/01	-	2	1	3
110/04	5	Elective (choose from Area-I)	_	-	2	-	2
		TOTAL	_	-	18	5	23
		_	COND YEAR				
	_		d Semester	_	_	_	_
Code	Domain	Courses	Prerequisite	Corequisite	Lecture	Practical	Total Units
PT701	PS	Fundamentals of Pharmacology	MC703	PN705/MC704	3	1	4
PN705	PS	Pharmaceutical & Medicinal Chemistry -I	PN702	PT701	2	-	2
PN706	PS	Natural Products-II	PN703	-	3	-	3
MC704	BBS	Biochemistry –I	-	-	2	1	3
PC703	PS	Pharmaceutics-I	PC702	-	2	1	3
MC705		Pathology	-	-	2	1	3
CP702		Social Behavioural & Ethical Aspect in Pharmacy	GE703	-	2	-	2
01702	0.5	TOTAL		_	16	4	20
			th Semester		10		20
Code	Domain	Courses	Prerequisite	Corequisite	Lecture	Practical	Total Units
PN707	PS	Pharmaceutical & Medicinal Chemistry -II	PN705	PT702	2	1	3
PT702		Pharmacology and Therapeutics-I	PT701/MC705	PN707	3	1	4
PC705	PS	Microbiology-I	-	-	2	1	3
CP703	CS	Microbiology-II	PC705	PN709/PT704	2	1	3
PC704	PS	Pharmaceutics-II	PC703	-	2	1	3
MC706		Biochemistry –II	MC704	-	2	1	3
GE705	GE	Computer Applications & Informatics	-	_	1	1	2
01/05	UL			-			
		IUIAL	-	-	14	7	21

		1	THIRD YEAR				
		Fif	th Semester				
Code	Domain	Courses	Prerequisite	Corequisite	Lecture	Practical	Total Units
PN709	PS	Pharmaceutical & Medicinal Chemistry-III	PC705	CP703/PT704	2	-	2
PT703	PS/CS	Pharmacology and Therapeutics-II	PT702/MC705	-	3	1	4
PT704	PS/CS	Pharmacology and Therapeutics- III	PT701/PC705/MC705	CP703/PN709	3	1	4
PN708	PS	Phytochemistry	MC704/PN706	-	3	1	4
PC706	PS	Biopharmaceutics and Pharmacokinetics	PC701	-	3	-	3
PN710	PS	Pharmaceutical Analysis	PN704/PN708	-	3	1	4
MC707	BBS	Basic Genetics	MC704	-	2	-	2
		TOTAL	-	-	19	4	23
		Professiona	Practice Experience				
Code	Domain	Professional Practice Experience	No of Hours	N	o of Credi	it Hours	
PPE01	CS	Introductory Professional Practice Experience	200		-		
		Six	th Semester				
Code	Domain	Courses	Prerequisite	Corequisite	Lecture	Practical	Total Units
PN711	PS	Pharmaceutical & Medicinal Chemistry-IV	PN705/PN707	PT705	3	-	3
PT705		Pharmacology and Therapeutics- IV	PT702/MC705	PN711	3	1	4
CP704	CS	Applied Pharmacokinetics	PC706	-	2	1	3
MC708	BBS	Immunology	MC707	-	2	-	2
PC708	PS	Pharmaceutical Technology	PC704	-	3	1	4
CP706	CS	Pharmaceutical Management	-	CP705	2	-	2
		Elective (choose from Area-II)	_	-	2	-	2
		TOTAL	_	-	17	3	20
			OURTH YEAR			<u> </u>	
_			enth Semester				
Code	Domain		Prerequisite	Corequisite	Lecture	Practical	Total Units
PC707	PS	Pharmaceutical Biotechnology	MC707/PC705	-	3	-	3
CP705	CS	Pharmacy Practice	PT704/PT705	-	3	-	3
CP707	CS	Hospital Pharmacy	CP704	-	2	-	2
CP708	CS	Professional Skills in Practice	CP706	CP707/CP709	2	1	3
CP709	CS	Clinical Pharmacy and Pharmaceutical Care	PT704/PT705	CP707/CP708	3	1	4
		Elective (choose from Area-III)	-	-	2	-	2
		TOTAL	-	-	15	3	17
		Profession	al Practice Experience				
Code	Domain	Professional Practice Experience	No of Hours	N	lo of Cred	it Hours	
PPE02	PS	Industrial Professional Practice Experience	100		2		
		Eig	hth Semester				
Code	Domain	Courses	Prerequisite	Corequisite	Lecture	Practical	Total Units
PT706	PS	Toxicology	MC706/PT701/PT702/PT705	-	2	-	2
PT707	CS	Pharmacogenomics	PT701/MC707/PC707	-	2	-	2
CP710	CS	Public Health Pharmacy	CP709	-	2	-	2
CP711	CS	Pharmacoepidemiology & Pharmacovigilance	CP709	-	2	-	2
CP712	CS	Pharmacy Laws and Drug Regulations	CP707	-	1	-	1
CP713	CS	Biostatistics	-	-	1	-	1
PT708	CS	Integrated Problem Based Learning	-	-	1	-	1
CP714	CS	Calculations in Practice	PC702/CP704/CP707	-	0	-	0
		TOTAL	-	-	11	0	11
			al Practice Experience				
Code		Professional Practice Experience	No of Hours	<u> </u>	lo of Cred		
PPE03	CS	Advanced Professional Practice Experience	600		12		

# 7.Courses of Study in BPharm

General Education (GE)	12	Pharmaceutical Sciences (PS)	54
Mathematics	2	Physical Pharmacy	3
English Language and Study Skills	2	Natural Products-I	3
General Psychology	2	Pharmaceutical Calculations	2
Islamic Studies	2	Fundamentals of Pharmacology	4
Computer Applications and Informatics	2	Pharmaceutical & Medicinal Chemistry -I	2
History of Pharmacy	2	Natural Products-II	3
		Pharmaceutics-I	3
Basic Science (BS)	9	Pharmaceutical & Medicinal Chemistry -II	3
Organic Chemistry- I	2	Phytochemistry	4
Organic Chemistry- II	4	Pharmaceutics-II	3
Analytical Chemistry	3	Microbiology-I	3
Basic Biomedical Sciences (BBS)	21	Pharmaceutical & Medicinal Chemistry-III	2
Anatomy and Physiology I	4	Biopharmaceutics and Pharmacokinetics	3
Medical Terminology	1	Pharmaceutical Analysis	4
Anatomy and Physiology-II	4	Pharmaceutical & Medicinal Chemistry-IV	3
Biochemistry – I	3	Pharmaceutical Biotechnology	3
Pathology	3	Pharmaceutical Technology	4
Biochemistry –II	2	Toxicology	2
Basic Genetics	2	Clinical Sciences (CS)	32
Immunology	2	Orientation to Pharmacy	1
		Social Behavioural and Ethical Aspect in Pharmacy	2
Pharmaceutical Sciences / Clinical Sciences (PS/CS)	16	Microbiology-II	3
Pharmacology and Therapeutics- I	4	Applied Pharmacokinetics	3
Pharmacology and Therapeutics- II	4	Pharmacy Practice	3
Pharmacology and Therapeutics- III	4	Pharmaceutical Management	2
Pharmacology and Therapeutics- IV	4	Hospital Pharmacy	2
Electives (EC)*	6	Professional Skills in Practice	3
Elective (choose from Area-I)	2	Clinical Pharmacy and Pharmaceutical Care	4
Elective (choose from Area-II)	2	Pharmacogenomics	2
Elective (choose from Area-III)	2	Public Health Pharmacy	2
Professional Practice Experience (PPE)	14	Pharmacoepidemiology & Pharmacovigilance	2
Introductory Professional Practice Experience (PPE-I)	0	Pharmacy Laws and Drug Regulations	1
Industrial Professional Practice Experience (PPE-II)	2	Biostatistics	1
Advanced Professional Practice Experience (PPE-III)	12	Integrated Problem Based Learning	1
		Calculations in Practice	0

*List of Ele	ective Courses	
EC711	Islamic Culture & Science	Area-I
EC712	Organizational Behavior and Cultural Diversity	
EC713	Basic Aspects of Social Sciences	
EC721	Nutrition and Health	
EC722	Alternative and Complimentary Medicine	Area-II
EC723	Fundamental of Cosmetic Science	
EC731	Nuclear Pharmacy	Area-III
EC732	Bioassay	

9

8.Course Description for the	BPharm Program	
PN701 Organic Chemistry- I	Credit Hours: 2+0	Domain: BS
This course describes the basics of organic chemistry as atomic struc	ure, orbital theory, hybridizatio	on, bond characteristics
and chemical bonding. This course also describes the role of ele		
resonance effect, isomerism, and nomenclature of organic compou		
MC701 Anatomy and Physiology I	Credit Hours: 3+1	Domain: BBS
The course offers a comprehensive knowledge of the structure and	function of the human cell, i	, ntegumentary, skeletal,
muscular and nervous systems. The information offered by the cou		0
of pharmacology, pathology, pathophysiology, and medicine. It g		
independent learner and researcher.		,
GE701 Mathematics	Credit Hours: 2+0	Domain: GE
The course will introduce basic mathematical concepts and calculat	ons which are required for the	e subsequent studies of
pharmaceutical and clinical calculations.		
GE702 English Language and Study Skills	Credit Hours: 2+0	Domain: GE
This course is designed to enable the students to achieve oral and w		
language skills with emphasis on writing, and it stimulates students'		
in this course are trained to apply critical thinking skills to a wide		
topics focusing on healthcare related issues. Course activities inclue vocabulary, and getting involved in group discussions and debates.		
and individuals. Students, in this course, are assessed by using diver		
final exams.	se tools, such as class presenta	nions, assignments and
MC702 Medical Terminology	Credit Hours: 1+0	Domain: BBS
Medical terminology is the study of the principles of medical word		and the second
medical vocabulary used in health care occupations. Students receiv		
through a study of root words, prefixes and suffixes. The study foc		
and use of medical terms.	ises on conect pronunciation,	spenny, appreviations
GE703 General Psychology	Credit Hours: 2+0	Domain: GE
The aim of this course is to provide the students with the knowledge		
		sychology. The content
of each session is driven by a set of student-centered learning obje	tives and targeted feedback.	
of each session is driven by a set of student-centered learning obje GE704 Islamic Studies	tives and targeted feedback. Credit Hours: 2+0	Domain: GE
of each session is driven by a set of student-centered learning objective <b>GE704 Islamic Studies</b> The aim of this Islamic Fiqh course is to give the students a compre	tives and targeted feedback. Credit Hours: 2+0 nensive understanding of the	<b>Domain: GE</b>
of each session is driven by a set of student-centered learning objective <b>GE704 Islamic Studies</b> The aim of this Islamic Fiqh course is to give the students a compresion the Holy Qur'an: Revelation and in prophet Mohamed Hadith and	tives and targeted feedback. Credit Hours: 2+0 nensive understanding of the p d sunnah which have been pro	<b>Domain: GE</b> phenomena mentioned oved and supported by
of each session is driven by a set of student-centered learning obje <b>GE704 Islamic Studies</b> The aim of this Islamic Fiqh course is to give the students a compre in the Holy Qur'an: Revelation and in prophet Mohamed Hadith an scientists using advanced technology. Explaining to the students w	tives and targeted feedback. Credit Hours: 2+0 nensive understanding of the p d sunnah which have been pro- hat is created in nature are si	<b>Domain: GE</b> phenomena mentioned oved and supported by
of each session is driven by a set of student-centered learning object <b>GE704 Islamic Studies</b> The aim of this Islamic Fiqh course is to give the students a compre- in the Holy Qur'an: Revelation and in prophet Mohamed Hadith an scientists using advanced technology. Explaining to the students w faith in their great Lord as which will be reflected in their lives as true	tives and targeted feedback. Credit Hours: 2+0 nensive understanding of the p d sunnah which have been pro- hat is created in nature are si e Muslims.	<b>Domain: GE</b> ohenomena mentioned oved and supported by gns to strengthen their
of each session is driven by a set of student-centered learning object <b>GE704 Islamic Studies</b> The aim of this Islamic Fiqh course is to give the students a compre- in the Holy Qur'an: Revelation and in prophet Mohamed Hadith an scientists using advanced technology. Explaining to the students we faith in their great Lord as which will be reflected in their lives as true <b>CP701 Orientation to Pharmacy</b>	tives and targeted feedback. Credit Hours: 2+0 nensive understanding of the p d sunnah which have been pro- hat is created in nature are si e Muslims. Credit Hours: 1+0	Domain: GE ohenomena mentioned oved and supported by gns to strengthen their Domain: CS
of each session is driven by a set of student-centered learning object <b>GE704 Islamic Studies</b> The aim of this Islamic Fiqh course is to give the students a compre- in the Holy Qur'an: Revelation and in prophet Mohamed Hadith an scientists using advanced technology. Explaining to the students we faith in their great Lord as which will be reflected in their lives as true <b>CP701 Orientation to Pharmacy</b> The goal of the course is to give students an understanding of the	Credit Hours: 2+0         nensive understanding of the product of the	Domain: GE ohenomena mentioned oved and supported by gns to strengthen their Domain: CS and genomics as they
of each session is driven by a set of student-centered learning object <b>GE704 Islamic Studies</b> The aim of this Islamic Fiqh course is to give the students a compre- in the Holy Qur'an: Revelation and in prophet Mohamed Hadith an scientists using advanced technology. Explaining to the students we faith in their great Lord as which will be reflected in their lives as true <b>CP701 Orientation to Pharmacy</b> The goal of the course is to give students an understanding of the apply to improving the problems in drug therapy optimization and	Credit Hours: 2+0         nensive understanding of the provident of	Domain: GE ohenomena mentioned oved and supported by gns to strengthen their Domain: CS s and genomics as they basic understanding of
of each session is driven by a set of student-centered learning object <b>GE704 Islamic Studies</b> The aim of this Islamic Fiqh course is to give the students a compre- in the Holy Qur'an: Revelation and in prophet Mohamed Hadith an scientists using advanced technology. Explaining to the students we faith in their great Lord as which will be reflected in their lives as true <b>CP701 Orientation to Pharmacy</b> The goal of the course is to give students an understanding of the apply to improving the problems in drug therapy optimization and discipline of pharmacogenomics. The genetic basis of variability in	Credit Hours: 2+0         nensive understanding of the product of the	Domain: GE ohenomena mentioned oved and supported by gns to strengthen their Domain: CS and genomics as they basic understanding of te to drug efficacy and
of each session is driven by a set of student-centered learning object <b>GE704 Islamic Studies</b> The aim of this Islamic Fiqh course is to give the students a compre- in the Holy Qur'an: Revelation and in prophet Mohamed Hadith an scientists using advanced technology. Explaining to the students we faith in their great Lord as which will be reflected in their lives as true <b>CP701 Orientation to Pharmacy</b> The goal of the course is to give students an understanding of the apply to improving the problems in drug therapy optimization and discipline of pharmacogenomics. The genetic basis of variability in toxicity, adverse drug reactions and drug-drug interaction. As such	Credit Hours: 2+0         nensive understanding of the properties of the principles of human genetics of the providing of the providing of the providence of the providing of the properties of the providing of the properties of the providence o	Domain: GE ohenomena mentioned oved and supported by gns to strengthen their Domain: CS and genomics as they basic understanding of te to drug efficacy and
of each session is driven by a set of student-centered learning object <b>GE704 Islamic Studies</b> The aim of this Islamic Fiqh course is to give the students a compre- in the Holy Qur'an: Revelation and in prophet Mohamed Hadith an scientists using advanced technology. Explaining to the students we faith in their great Lord as which will be reflected in their lives as true <b>CP701 Orientation to Pharmacy</b> The goal of the course is to give students an understanding of the apply to improving the problems in drug therapy optimization and discipline of pharmacogenomics. The genetic basis of variability in toxicity, adverse drug reactions and drug-drug interaction. As such genetic component of patient variability to deliver effective individu	tives and targeted feedback. Credit Hours: 2+0 hensive understanding of the particular of the partic	Domain: GE ohenomena mentioned oved and supported by gns to strengthen their Domain: CS and genomics as they basic understanding of te to drug efficacy and h understanding of the
of each session is driven by a set of student-centered learning object <b>GE704 Islamic Studies</b> The aim of this Islamic Fiqh course is to give the students a compre- in the Holy Qur'an: Revelation and in prophet Mohamed Hadith an scientists using advanced technology. Explaining to the students we faith in their great Lord as which will be reflected in their lives as true <b>CP701 Orientation to Pharmacy</b> The goal of the course is to give students an understanding of the apply to improving the problems in drug therapy optimization and discipline of pharmacogenomics. The genetic basis of variability in toxicity, adverse drug reactions and drug-drug interaction. As such genetic component of patient variability to deliver effective individu <b>PN702 Organic Chemistry- II</b>	tives and targeted feedback. Credit Hours: 2+0 hensive understanding of the particular of the partic	Domain: GE ohenomena mentioned oved and supported by gns to strengthen their Domain: CS and genomics as they basic understanding of te to drug efficacy and h understanding of the Domain: BS
of each session is driven by a set of student-centered learning object <b>GE704 Islamic Studies</b> The aim of this Islamic Fiqh course is to give the students a compre- in the Holy Qur'an: Revelation and in prophet Mohamed Hadith an scientists using advanced technology. Explaining to the students we faith in their great Lord as which will be reflected in their lives as true <b>CP701 Orientation to Pharmacy</b> The goal of the course is to give students an understanding of the apply to improving the problems in drug therapy optimization and discipline of pharmacogenomics. The genetic basis of variability in toxicity, adverse drug reactions and drug-drug interaction. As such genetic component of patient variability to deliver effective individu <b>PN702 Organic Chemistry- II</b> This course describes the structural configuration, physical	tives and targeted feedback. Credit Hours: 2+0 nensive understanding of the particle of the	Domain: GE ohenomena mentionec oved and supported by gns to strengthen their Domain: CS and genomics as they basic understanding or te to drug efficacy and h understanding of the Domain: BS ethods, and chemica
of each session is driven by a set of student-centered learning object <b>GE704 Islamic Studies</b> The aim of this Islamic Fiqh course is to give the students a compre- in the Holy Qur'an: Revelation and in prophet Mohamed Hadith an scientists using advanced technology. Explaining to the students we faith in their great Lord as which will be reflected in their lives as true <b>CP701 Orientation to Pharmacy</b> The goal of the course is to give students an understanding of the apply to improving the problems in drug therapy optimization and discipline of pharmacogenomics. The genetic basis of variability in toxicity, adverse drug reactions and drug-drug interaction. As such genetic component of patient variability to deliver effective individu <b>PN702 Organic Chemistry- II</b> This course describes the structural configuration, physical reactions/reaction mechanism of aliphatic, aromatic hydrocarbon, se	tives and targeted feedback. Credit Hours: 2+0 The service understanding of the particular of the pa	Domain: GE ohenomena mentionec oved and supported by gns to strengthen their Domain: CS and genomics as they basic understanding of te to drug efficacy and h understanding of the Domain: BS ethods, and chemica ynuclear hydrocarbons
of each session is driven by a set of student-centered learning object <b>GE704 Islamic Studies</b> The aim of this Islamic Fiqh course is to give the students a compre- in the Holy Qur'an: Revelation and in prophet Mohamed Hadith and scientists using advanced technology. Explaining to the students we faith in their great Lord as which will be reflected in their lives as true <b>CP701 Orientation to Pharmacy</b> The goal of the course is to give students an understanding of the apply to improving the problems in drug therapy optimization and discipline of pharmacogenomics. The genetic basis of variability in toxicity, adverse drug reactions and drug-drug interaction. As such genetic component of patient variability to deliver effective individue <b>PN702 Organic Chemistry- II</b> This course describes the structural configuration, physical reactions/reaction mechanism of aliphatic, aromatic hydrocarbon, se esters, ethers, thioethers, alcohols, carboxylic acids, aldehydes,	tives and targeted feedback. Credit Hours: 2+0 The sum and the sum and the sum and the sum and the second pro- that is created in nature are side of the sum and the sum and the second seco	Domain: GE ohenomena mentionec oved and supported by gns to strengthen their Domain: CS and genomics as they basic understanding of te to drug efficacy and h understanding of the Domain: BS ethods, and chemica ynuclear hydrocarbons
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MC703 Anatomy and Physiology-II	Credit Hours: 3+1	Domain: BBS
The course offer a comprehensive knowledge of the strue	cture and function of the digesti	ve, blood, cardiovascular
respiratory, renal system, endocrine and reproductive sys	stems. The information offered	by the course forms the
foundations for further understanding of pharmacology, pat	thology, pathophysiology, and me	dicine. It gives the studen
an opportunity to develop into an independent learner and i	researcher.	-
PN703 Natural Products-I	Credit Hours: 2+1	Domain: PS
Natural products is a specific discipline taught only at pharr	maceutical faculties deals with the	versatile studies of drug
and auxiliary substances of biological origin (plant and anima		
The aim of this course is to provide the students information	•	
the part/s used and the morphological and the histological		
should be aware with the identification of the drugs, in the w		
different medicinal plants organs. Botanical origin, pharmaco	•	•
chemical tests for each medicinal plant will be also explained	-	
PC702 Pharmaceutical Calculations	Credit Hours: 2+0	Domain: PS
This course aims to provide students with an introductory k		
prescription, systems of measurements, Roman numerals a	5	6
patient's age, body weight and body surface area, calculation		
and units conversion. In addition to dilution and concentrat		
formulas, alligation of semisolids and reconstitution of powd		is, reducing and emargin
PN704 Analytical Chemistry	Credit Hours: 2+1	Domain: BS
This course describes the classical analytical chemistry tech		
evaluation of data, stoichiometry, gravimetric and titrimetric i	methods of analysis, acid-base che	mistry involves in titration
complexation titration, and redox titration.		
Laboratory includes practical examples of the methods cover	red in this course.	
GE706 History of Pharmacy	Credit Hours: 2+0	Domain: GE
This course aims to introduce students to the roots and	d historical development of phar	macy and the importar
This course aims to introduce students to the roots and contributions of the ancient people and cultures to the evolu	d historical development of phan ition of the profession. Moreover, a	macy and the importan an important aspect of thi
This course aims to introduce students to the roots and contributions of the ancient people and cultures to the evolu course will be discussions concerning the development of cri	d historical development of phan ition of the profession. Moreover, a itical therapeutic agents that revol	macy and the importan an important aspect of thi utionized the treatment c
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harmaceutical dosage forms in details. It encompasses, definition, types, preparation, additives, vehicles, problen neounter preparation, and factors affecting stability; storage, packaging and specific quality control tests of each. Tr Durse also provides extensive practical exposure which enables the students to acquire technical, calculato ommunication & dispensing skills. In addition of developing professional attitudes such as team work & values. <b>Crost Pathology Credit Hours: 2+1 Domain: B82</b> The course provides the students with the basic knowledge and conceptual understanding of the pathology of various body tissues in different diseases. <b>P702 Social Behavioural and Ethical Aspect in Pharmacy Credit Hours: 2+0 Domain: CS</b> The course focus on professional code of conduct prescribing all the ethical responsibilities expected of licenses harmacists in the UAE. The course introduces core concepts in sociology and illustrates how the field is dynamic an elevant to the pharmacy profession, based on sound ethical values. This relationship focuses on promoting healt reventing illness, restoring health and alleviating suffering. <b>Credit Hours: 2+1 Domain: CS</b> <b>N707 Pharmaceutical</b> care to culturally diverse populations. <b>N707 Pharmaceutical &amp; Medicinal Chemistry -II Credit Hours: 2+1 Domain: PS</b> This course describes the medicinal chemistry of drugs affecting cardiovascular system (cardiac glycosides, antiagnin tintarythmic adantil, anticoagulants, antiplatelets, and diuretics). This course also describes opio nalgesic, antitussive, non steroidal anti-inflammatory agents and drugs affecting immune systems as antihistamines an tiluler agents. In this course student will gain knowledge and sells about dr esigning, synthesis and analysis of different classes of medicinal agents. <b>T702 Pharmacology and Therapeutics-I Credit Hours: 3+1 Domain: PS</b> the course first deals with the principles of the common cardiovascular diseases describing the causes of hypertensio en major determinants which cortol	his course is centered on imparting an unde	erstanding of the types and characteris	stics of conventional soli
ncounter preparation, and factors affecting stability storage, packaging and specific quality control tests of each. The bourse also provides extensive practical exposure which enables the students to acquire technical, calculatio ommunication & dispensing skills. In addition of developing professional attitudes such as team work & values. <b>IC705 Pathology Credit Hours: 2+1 Domain: BBS</b> The course provides the students with the basic knowledge and conceptual understanding of the pathology of varior iseases. Thus the student will be familiar with the names, classification, pathogenesis and pathological changes in the arious body tissues in different diseases. <b>P702 Social Behavioural and Ethical Aspect in Pharmacy Credit Hours: 2+0 Domain: CS</b> the course focus on professional code of conduct prescribing all the ethical responsibilities expected of license harmacists in the UAE. The course introduces core concepts in sociology and illustrates how the field is dynamic an elevant to the pharmacy profession, based on sound ethical values. This relationship focuses on promoting healt reventing illness, restoring health and alleviating suffering. emphasizes the role of sociology in the development, structure, interaction, foster sensitivity to the facility with person and societal values, collective behavior of social relationships, interpersonal and decision-making processes associate it the provision of pharmaceutical care to culturally diverse populations. <b>NTOT Pharmaceutical &amp; Medicinal Chemistry -11 Credit Hours: 2+1 Domain: PS</b> This course describes the medicinal chemistry of drugs affecting immune systems as antihistamines an intulker agents. In this course student will gain knowledge about the physicochemical/stereochemical / pharmacokinet roperties of drugs and their structure activity relationship. Students will also gain knowledge and skills about dru esigning, synthesis and analysis of different classes of medicinal agents. <b>T702 Pharmaceutical and Harpeutics I Credit Hours: 3+1</b>	powders, tablets & capsules), liquid (suspension &	emulsion) and semisolids (ointment, cream	n, paste, gel & suppositorie
purse also provides extensive practical exposure which enables the students to acquire technical, calculatio         primunication & dispensing skills. In addition of developing professional attitudes such as team work & values.         IC705 Pathology       Credit Hours: 2+1       Domain: BBS         ne course provides the students with the basic knowledge and conceptual understanding of the pathological changes in the arious body tissues in different diseases.       Credit Hours: 2+0       Domain: CS         P702 Social Behavioural and Ethical Aspect in Pharmacy       Credit Hours: 2+0       Domain: CS         ne course focus on professional code of conduct prescribing all the ethical responsibilities expected of licenses harmacists in the UAE. The course introduces core concepts in sociology and illustrates how the field is dynamic an elevant to the pharmacy profession, based on sound ethical values. This relationship focuses on promoting healt reventing illness, restoring health and alleviating suffering.       mysel and discipant and alleviating suffering.         NTO7 Pharmaceutical & Medicinal Chemistry -II       Credit Hours: 2+1       Domain: PS         nis course describes the medicinal chemistry of drugs affecting cardiovascular system (cardiac glycosides, antiagni tiarrythmic and antibipidemic agents, anticoagulants, antipatelets, and diversity. This course also describes opio antilussive, non steroidal anti-inflammatory agents and drugs affecting immune systems as and shils og ain knowledge and skills about dre signing, synthesis and analysis of different classes of medicinal agents.       Domain: PS         nalgesic, anittussive, non steroidal anti-inflammatory agents and dr	harmaceutical dosage forms in details. It encon	npasses, definition, types, preparation, a	dditives, vehicles, problem
Dommunication & dispensing skills. In addition of developing professional attitudes such as team work & values.           IC705 Pathology         Credit Hours: 2+1         Domain: BS           Income provides the students with the basic knowledge and conceptual understanding of the pathology of varion is bases.         Domain: CS           P702 Social Behavioural and Ethical Aspect in Pharmacy         Credit Hours: 2+0         Domain: CS           Pro2 social Behavioural and Ethical Aspect in Pharmacy         Credit Hours: 2+0         Domain: CS           Pro2 social Behavioural and Ethical Aspect in Pharmacy         Credit Hours: 2+0         Domain: CS           Pro2 social Behavioural and Ethical Supect in Pharmacy         Credit Hours: 2+1         Domain: CS           ecourse focus on profession, based on sound ethical values. This relationship focuses on promoting healt and alleviating suffering.         emphasizes the role of sociology in the development, structure, interaction, foster sensitivity to the facility with person do societal values, collective behavior of social relationships, interpersonal and decision-making processes associate ith the provision of pharmaceutical care to culturally diverse populations.         Domain: PS           N707 Pharmaceutical & Medicinal Chemistry of drugs affecting archivascular system (cardia cglycosides, antiagni triarythmic and antipidemic agents, anticoagulants, antiplatelets, and diverside structure activity relationship. Students will also gain knowledge and skills about dre signing, synthesis and analysis of different classes of medicinal agents.         Domain: PS           Tri2 Phar	ncounter preparation, and factors affecting stabili	ity; storage, packaging and specific quality	y control tests of each. Th
Intervention       Credit Hours: 2+1       Domain: BBS         he course provides the students with the basic knowledge and conceptual understanding of the pathology of varior iseases. Thus the student will be familiar with the names, classification, pathogenesis and pathological changes in the arious body tissues in different diseases.       Domain: CS         P702 Social Behavioural and Ethical Aspect in Pharmacy       Credit Hours: 2+0       Domain: CS         he course forcus on professional code of conduct prescribing all the ethical responsibilities expected of licenses harmacists in the UAE. The course introduces core concepts in sociology and illustrates how the field is dynamic ar elevant to the pharmacy profession, based on sound ethical values. This relationship focuses on promoting healt reventing illness, restoring health and alleviating suffering.       Domain: CS         eventing illness, restoring health and alleviating suffering.       Credit Hours: 2+1       Domain: PS         his course describes the medicinal Chemistry of drugs affecting cardiovascular system (cardiac glycosides, antiagni intarythmic and antilipidmic agents, anticoagulants, antiplateleta, and diureis). This course also describes opio nalgesic, antitusive, non steroidal anti-inflammatory agents and drugs affecting immune systems as antihistamines ar thiuleer agents. In this course student will gain knowledge about the physicochemical/stereochemical/pharmacokineti poerties of drugs and their principles of the common cardiovascular diseases describing the causes of hypertensio te major system (cardiac glycosides, antiagni, synthesis and analysis of different classes of medicainal agents.       Domain: CS         T702 Pharmacology and Therapeutics- 1	ourse also provides extensive practical exposu	ure which enables the students to acc	quire technical, calculatio
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PC705 Microbiology-I	Credit Hours: 2+1	Domain: PS
Microbiology is an exciting discipline with far-reaching impacts in		
general principles of microbiology and includes the following to		, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
cultivation, resistance and introduction to viruses and fungi. It	also discusses various issues	s related to Sterilization,
Disinfection, Sterility testing and Microbial spoilage & preservati	ion of pharmaceutical product	s. Laboratory focuses on
the Fundamental microbiological techniques.		
This course is therefore intended to provide basic knowledge in	Microbiology and students w	ill gain both background
and experimental experience in the broad field of microbes setting	g foundation needed for more a	advanced and specialized
courses.		
MC706 Biochemistry –II	Credit Hours: 2+0	Domain: BBS
The course provides to the pharmacy students the knowledge	e and advance understanding	of the basic metabolic
pathways of different biomolecules and related clinical correlation	ons in addition to integration	of metabolic reactions in
different human tissues and different physiological and pathologi	ical conditions.	
GE705 Computer Applications and Informatics	Credit Hours: 1+1	Domain: CS
The aim of the Computer Applications course is to provide the st	udents with the ability to form	nat and document source
material in properly constructed papers, presentations and a varie	ety of visual formats	
Upon completion of the Informatics course the student should have	ave the knowledge and experio	ence that enable them to
comprehend the hospital information system including Electronic	medical record and drug inforr	nation system in addition
to using ICT (information communication technology) in the appli	ied fields of pharmacy.	
PN709 Pharmaceutical & Medicinal Chemistry-III	Credit Hours: 2+0	Domain: PS
This course describes the medicinal chemistry of antibiotic	and antimicrobial agents,	antifungal, antiviral and
antineoplastic agents. In this course student will gain knowledge		
and how the structure of a drug relates to its physicochemical, ph	<b>J</b>	
PT703 Pharmacology and Therapeutics- II	Credit Hours: 3+1	Domain: PS/CS
The course covers the pathophysiology, clinical presentation, c		ontributing to the most
encountered respiratory, gastrointestinal and rheumatologic diso	-	
The goals of therapy, medications used, treatment algorithms,		patient education of the
studied disorders are fully covered.		
PT704 Pharmacology and Therapeutics- III	Credit Hours: 3+1	Domain: PS/CS
This course is designed to provide students with integrated kn	owledge of basic Pharmacolo	ogy of various classes of
antimicrobial and chemotherapeutic agents. Furthermore, the cou	-	
	urse covers the management o	
		of selected infectious and
neoplastic diseases based on evidence-based guidelines include	ing lower respiratory tract, u	of selected infectious and inary tract, endocarditis,
neoplastic diseases based on evidence-based guidelines includ gastrointestinal, CNS infections. Additionally the course will cover	ing lower respiratory tract, un antineoplastic pharmacology	f selected infectious and inary tract, endocarditis, with various applications
neoplastic diseases based on evidence-based guidelines includigastrointestinal, CNS infections. Additionally the course will cover in neoplasm management, including breast cancer and lymph	ing lower respiratory tract, un rantineoplastic pharmacology homas. The course will be t	of selected infectious and inary tract, endocarditis, with various applications aught concurrently with
neoplastic diseases based on evidence-based guidelines including gastrointestinal, CNS infections. Additionally the course will cover in neoplasm management, including breast cancer and lymph Pharmaceutical and Medicinal Chemistry-III and Microbiology-II	ing lower respiratory tract, un rantineoplastic pharmacology homas. The course will be t	of selected infectious and inary tract, endocarditis, with various applications aught concurrently with
neoplastic diseases based on evidence-based guidelines includi gastrointestinal, CNS infections. Additionally the course will cover in neoplasm management, including breast cancer and lympl Pharmaceutical and Medicinal Chemistry-III and Microbiology-II knowledge.	ing lower respiratory tract, un rantineoplastic pharmacology homas. The course will be t	of selected infectious and inary tract, endocarditis, with various applications aught concurrently with
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neoplastic diseases based on evidence-based guidelines includi gastrointestinal, CNS infections. Additionally the course will cover in neoplasm management, including breast cancer and lympl Pharmaceutical and Medicinal Chemistry-III and Microbiology-II knowledge. <b>CP703 Microbiology-II</b> The aim of this course is to provide the students knowledge of the r pathogenesis, diagnostic lab tests (conventional and molecula important pathogenic bacteria and viruses and fungi.Throughout pathogenic bacteria, viruses and fungi that are of actual or potention of bacteriophages and the mechanism of antibiotics, drug resistant <b>PC706 Biopharmaceutics and Pharmacokinetics</b> The major focus in Biopharmaceutics will be concentrated on the performance in the body during the processes of liberation, all purpose of evaluation of drug delivery systems, and the therap section of the course provides a conceptual and quantitative bac needed to pursue advanced studies in clinical pharmacokinetics. <b>PN710 Pharmaceutical Analysis</b> This course is an introduction to modern instrumental methods of	ing lower respiratory tract, un antineoplastic pharmacology homas. The course will be t I courses to offer the maximu <b>Credit Hours: 2+1</b> morphology, cultural character r), epidemiology, prevention t this course, attempts are ma al importance to humans.Also, nce and antibiotic susceptibilit <b>Credit Hours: 3+0</b> various in vitro and in vivo fac poorption, distribution, metabo poutic management of patient ackground in pharmacokinetic <b>Credit Hours: 3+1</b> f chemical analysis. It describes poscopic techniques of UV/VIS,	of selected infectious and inary tract, endocarditis, with various applications aught concurrently with um benefit of integrated <b>Domain: CS</b> istics, antigenic structure, and treatment of some de at emphasizing those the student will be aware y testing. <b>Domain: PS</b> ctors that can affect drug plism, excretion with the ts. The pharmacokinetics theory and applications <b>Domain: PS</b> is the theory of operation, Fluorescence, FTIR, AAS,

MC707 Basic Genetics	Credit Hours: 2+0	Domain: BBS
This course is designed to provide the students with an unders	tanding of basic concepts of q	enetics which includes the
chromosomal basis of heredity, Nucleic acids (DNA and RNA),	replication and repair mechan	isms of DNA, genes, gen
amilies, gene frequencies gene expression, regulation and gene	•	5 5
and multifactorial inheritance and the treatment of genetic dise		
be successful in the subsequent courses within the program	P	
PN711 Pharmaceutical & Medicinal Chemistry-IV	Credit Hours: 3+0	Domain: PS
This course describes the medicinal chemistry of centrally actin		
general anesthetics, psychotherapeutic drugs, antiparkinsonian that affect neuronal transmission as local anesthetics, drugs affe drugs, steroid hormones and therapeutically related drugs (co course student will gain knowledge about how the structur pharmacological activity and metabolism. Students will also g respective classes of pharmacodynamic agents.	ecting endocrine system as insu orticosteroids, sex hormones) e of a drug relates to its pl	ulin and oral hypoglycemi and thyroid drugs. In thi hysicochemical properties
PT705 Pharmacology and Therapeutics- IV	Credit Hours: 3+1	Domain: PS/CS
This course is designed to provide students with broad und		
Parkinson's and Alzheimer' diseases. Additionally, this course disorders, the Pharmacology of antidiabetic agents and manag classes using in vivo experiments, animal simulator and case-ba The course will be taught concurrently with Pharmaceutical and prograted knowledge	ement of diabetes mellitus. Th sed approaches related to the	e course includes practication to provide the second second second second second second second second second se
ntegrated knowledge.		
CP704 Applied Pharmacokinetics The course deals with the concepts of clinical pharmacokinetics	Credit Hours: 2+1	Domain: CS
organ impairment and transplant clinical pharmacokinetics a alteration of dosage form and doses based on individualizati monitoring, case study of drugs requiring therapeutic monitorin	on and population data, appling.	roach to therapeutic drug
MC708 Immunology	Credit Hours: 2+0	Domain: BBS
The aim of this course is to provide the students an understar theories of immunology and the different types of failures of i different types of immunoglobulins and immunogens and the which is a rapidly evolving area that will emphasize Biothera Monoclonal antibodies.	mmune system.Also, the stude eir functions, immunohematol	ents should be aware wit ogy and immune therap
CP705 Pharmacy Practice	Credit Hours: 2+0	Domain: CS
The aim of this course is to provide the students with the know pharmacist concerning etiology, symptoms, diagnosis, treatmer be aware with different types of OTC medications used for med care, children health, ENT problems and pain cases. Also it suppl needed to deal with patients in the hospital and community pha	nt, management and counseling ical cases of respiratory and G ies the student with the profess	g. Also, the student should IT systems, skin and denta ional communication skill
CP706 Pharmaceutical Management The aim of this course is to provide the students with the princip		
The aim of this course is to provide the students with the princip this course, students are exposed to various management princ store.	iples which enable them to eff	iciently manage pharmac
PC707 Pharmaceutical Biotechnology	Credit Hours: 2+0	Domain: PS
This course provides a balanced and comprehensive knowl torecombinant DNA technology, hybridoma technology and fe use of hybridoma technology to produce monoclonal antik recombinant DNA technology to produce several drugs such tissue plasminogen activator.Also, the student will be aware of Pharmaceuticals(Nucleic Acid Based Pharmaceuticals and Prot	rmentation technology in pha podies as potential antitumor as insulin, human growth hor characteristics of different type	rmaceutical sciences, the agents, and the use of mone, hepatitis B vaccine es of Biotechnology Based



PC708 Pharmaceutical Technology	Credit Hours: 2+1	Domain: PS
This course designed to train students in various aspects of	pharmaceutical industry and	I to provide a proper
understanding in pharmaceutical pre-formulation studies, basic inc	lustrial processes (milling, mixi	ng, drying, filtration and
granulation), products packaging and good manufacturing pract		
stresses upon the technology of some advanced pharmaceutic	al dosage forms including tra	ansdermal patches and
microencapsulation.		
CP707 Hospital Pharmacy	Credit Hours: 2+0	Domain: CS
The aim of this course is to provide the students with the knowled	ge of the principles of pharma	cy practice in a hospital
setting. It aims to enable students to gain knowledge to pract		
understanding the basic layout of the pharmacy department ir	-	-
pharmacist in hospital practice including the distribution of media		-
member of the healthcare team, and other patient care services, id		-
and mastering the administrative part of hospital pharmacy servi	ces including drug distributior	n control system & unit
Dose Systems.		
CP708 Professional Skills in Practice	Credit Hours: 2+1	Domain: CS
The aim of this course is to provide the students with the knowledge		
types of healthcare delivery systems, and complexities of relation		-
workingwithin the health care system. Students should be aware o	-	d by pharmacists to get
the insight they need to cultivate informed, compassionate and eff		
CP709 Clinical Pharmacy and Pharmaceutical Care	Credit Hours: 3+1	Domain: CS
This course provides the knowledge and experience that enabl		
pharmacy and pharmaceutical care practice aspects. The aim of the	•	
treatment assessment, care plan developing and follow up evaluat	•	
identifying different types of patients drug related needs, differen	t types of drug related proble	ms and taking decision
with ethical considerations in the practice of clinical pharmacy.		
PT706 Toxicology	Credit Hours: 2+0	Domain: PS
The course is intended to empower students with basic knowledge		
basic principles, mechanisms, and common approaches for the m		-
covered in this course that includes occupational, heavy metals an	-	gain knowledge of how
selected chemicals/drugs exert toxic effects, present and managed		
PT707 Pharmacogenomics	Credit Hours: 2+0	Domain: CS
The goal of the course is to give students an understanding of th		
apply to improving the problems in drug therapy optimization an		-
discipline of pharmacogenomics. The genetic basis of variability i		
toxicity, adverse drug reactions and drug-drug interaction. As suc		h understanding of the
genetic component of patient variability to deliver effective individ	ualized pharmaceutical care.	
CP710 Public Health Pharmacy		
-	Credit Hours: 2+0	Domain: CS
This course introduces students to various aspects of public hea	Ith pharmacy includingrole of	a pharmacist in public
This course introduces students to various aspects of public hea health systems, pharmacist's services in society health promotion an	Ith pharmacy includingrole of d patients' education in variou	a pharmacist in public s areas such as women's
This course introduces students to various aspects of public heal health systems, pharmacist's services in society health promotion an health, children's care, effect of nutrition on public health, hom	Ith pharmacy includingrole of d patients' education in variou	a pharmacist in public s areas such as women's
This course introduces students to various aspects of public heal health systems, pharmacist's services in society health promotion an health, children's care, effect of nutrition on public health, hom smoking cessation.	Ith pharmacy includingrole of d patients' education in variou e diagnostic devices for heal	a pharmacist in public s areas such as women's thcare monitoring, and
This course introduces students to various aspects of public heal health systems, pharmacist's services in society health promotion an health, children's care, effect of nutrition on public health, hom smoking cessation. <b>CP711 Pharmacoepidemiology &amp; Pharmacovigilance</b>	Ith pharmacy includingrole of d patients' education in various e diagnostic devices for heal <b>Credit Hours: 2+0</b>	a pharmacist in public s areas such as women's thcare monitoring, and <b>Domain: CS</b>
This course introduces students to various aspects of public heal health systems, pharmacist's services in society health promotion and health, children's care, effect of nutrition on public health, how smoking cessation.  CP711 Pharmacoepidemiology & Pharmacovigilance This courseis equip with a basic understanding of the conditioned	Ith pharmacy includingrole of d patients' education in various e diagnostic devices for heal Credit Hours: 2+0 cepts and practice of pharm	a pharmacist in public s areas such as women's thcare monitoring, and <b>Domain: CS</b> nacoepidemiology and
This course introduces students to various aspects of public heal health systems, pharmacist's services in society health promotion an health, children's care, effect of nutrition on public health, hom smoking cessation.  CP711 Pharmacoepidemiology & Pharmacovigilance This courseis equip with a basic understanding of the contexpondent pharmacovigilance in areas related to the assessment of drug safe	Ith pharmacy includingrole of d patients' education in various e diagnostic devices for heal Credit Hours: 2+0 Cepts and practice of pharmety and risk-benefit of drug us	a pharmacist in public s areas such as women's thcare monitoring, and <b>Domain: CS</b> nacoepidemiology and e. This course will meet
This course introduces students to various aspects of public heal health systems, pharmacist's services in society health promotion an health, children's care, effect of nutrition on public health, hom smoking cessation.  CP711 Pharmacoepidemiology & Pharmacovigilance This courseis equip with a basic understanding of the contexp pharmacovigilance in areas related to the assessment of drug safe the needs of a wide variety of practitioners. This course covers the labeled of the second seco	Ith pharmacy includingrole of of patients' education in various e diagnostic devices for heal Credit Hours: 2+0 cepts and practice of pharm ety and risk-benefit of drug us pasic principles of epidemiolog	a pharmacist in public s areas such as women's thcare monitoring, and <b>Domain: CS</b> nacoepidemiology and e. This course will meet pical study designs. The
This course introduces students to various aspects of public heal health systems, pharmacist's services in society health promotion an health, children's care, effect of nutrition on public health, horn smoking cessation.  CP711 Pharmacoepidemiology & Pharmacovigilance This courseis equip with a basic understanding of the condition pharmacovigilance in areas related to the assessment of drug safe the needs of a wide variety of practitioners. This course covers the process of drug development and limitation to the clinical	Ith pharmacy includingrole of d patients' education in various e diagnostic devices for heal <b>Credit Hours: 2+0</b> Cepts and practice of pharmety and risk-benefit of drug us pasic principles of epidemiolog trials are discussed in this	a pharmacist in public s areas such as women's thcare monitoring, and <b>Domain: CS</b> nacoepidemiology and e. This course will meet gical study designs. The course. The status of
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This is an intensive introductory course in statistical methods used of statistical reasoning, underlying assumptions, and careful inter with the use of a statistical package and give them the skills need a data analysis at a basic level. The course will develop basic skill	in applied research. The cou	
with the use of a statistical package and give them the skills need	in applieu research. The cou	urse emphases on principle
	pretation of results. The co	ursefamiliarize the student
a data analysis at a basic level. The course will develop basic skill	led for effective data mana	gement, data manipulatior
demonstrations and independent lab.	·	5 5
PT708 Integrated Problem Based Learning	Credit Hours: 1+0	Domain: CS
The course is clinically oriented to emphasize the pharmacotherapy	in patient care. The studen	tsdiscuss different scenario
of patient cases where medical history, symptoms, clinical present	ation 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 p	problems, second to sugges
possible solutions of these problems and finally to evaluate thes		
enhance the students' oral and written communicationskills, and th		
search, sort, critically think and analyze drug-related information.		
CP714 Calculations in Practice	Credit Hours: 0	Domain: CS
The aim of this course is to provide the students with the principle	s of management related to	p pharmacy practice. During
this course, students are exposed to various management princip		
store.		, , , ,
ELECTIVE COU	RSES	
EC 711 Islamic Culture and Science	Credit Hours: 2	Area : I
This course covers comprehensive concept of Islamic culture, resource	Irces, and its characteristics	compared to other cultures
It shows how traditions, believes, thoughts and faith can frame pe		
calling for honorable manners, good tidings & pure, peaceful Isl	-	-
between permissible and prohibited. In addition to that, the co	-	-
contributions of Muslims in the development of science, ancient		-
addition, the course develops reflection ability aiming to incl		
mentioned in the holy qur'an that are supported by man-made th		
		aovanceo recinicioov. In in
		advanced technology, in th
fields of physiology, chemistry, biology, botany etc.		Area : I
fields of physiology, chemistry, biology, botany etc. EC 712 Organizational Behavior and Cultural Diversity	Credit Hours: 2	Area : I
fields of physiology, chemistry, biology, botany etc. <b>EC 712 Organizational Behavior and Cultural Diversity</b> This course exposes students to behavioral science theories and a	Credit Hours: 2 pplications in management	Area : I Organizational behavior i
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fields of physiology, chemistry, biology, botany etc. <b>EC 712 Organizational Behavior and Cultural Diversity</b> This course exposes students to behavioral science theories and a an interdisciplinary field drawing from numerous disciplines incl theoryand many others. Organization behavior helps the stud	Credit Hours: 2 pplications in management uding psychology, sociolog ent to learn the value-add	Area : I . Organizational behavior i gy, economics, organization ded of "soft" management
fields of physiology, chemistry, biology, botany etc. <b>EC 712 Organizational Behavior and Cultural Diversity</b> This course exposes students to behavioral science theories and a an interdisciplinary field drawing from numerous disciplines incl	Credit Hours: 2 pplications in management uding psychology, sociolog ent to learn the value-add	Area : I . Organizational behavior i gy, economics, organization ded of "soft" management
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in pharmacy practice. In addition to information regarding actions, safety & different cosmetic preparations, method of production, organoleptic properties, stability & evaluation tests allow them to be as a drug expert in the field of industrial pharmacy for manufacture of these products.

EC 731 Nuclear Pharmacy	Credit Hours: 2	Area : III					
Nuclear pharmacy is a specialty area of pharmacy practice dedicated	I to the compounding and dis	pensing 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.							
EC 722 Piezesay	Credit Hourse 2	Area III					

#### EC 732 Bioassay

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.

#### 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.

**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).

#### **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		•	For BPharm							
Range of Warks	Grade Poir	ii ii	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	В						
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			Ι							
Withdra	w	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 it's 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



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

	B. Pharm
GPA / CGPA	Evaluation
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																		
							Assessment Tools											
																Practica		
Semester	Code	Domain	Courses	Lecture	Practical	Total Units	Quizes	OSCE	PBL assessment	Attitude & Behavior	Case based assessment	Assignment	Presentation	Project Report	Mid Semester	work	oral	Final Exam
	PN701	BS	Organic Chemistry- I	2	-	2									30			70
e	MC701	BBS	Anatomy and Physiology I	3	1	4									20	20	10	50
est	GE701	GE	Mathematics	2	-	2									30			70
e l	GE702	GE	English Language and Study Skills	2	-	2						40	5	5				50
ţ	MC702	BBS	Medical Terminology	1	-	1												100
First Semester	GE703	GE	General Psychology	2	-	2						10	10		30			50
-	GE704	GE	Islamic Studies	2	-	2				10			20					70
<u> </u>			Elective (choose from Area-I)	2	-	2	10					20						70
5	CP701	CS	Orientation to Pharmacy	1	-	1						30						70
Semester	PN702	BS	Organic Chemistry- II	3	1	4									20	20		60
E E	PC701	PS	Physical Pharmacy	2	1	3	10								20	25		45
s	MC703	BBS	Anatomy and Physiology-II	3	1	4									20	20	10	50
p u	PN703	PS	Natural Products-I	2	1	3	20					<u> </u>			20	20	10	50
Second	PC702	PS	Pharmaceutical Calculations	2	-	2	20								20	20		60
l N	PN704 GE706	BS GE	Analytical Chemistry History of Pharmacy	2	1	3						20	40		20 40	20		60
<u> </u>	PT701	PS	Fundamentals of Pharmacology	3	1	4	5					20	40		25	25		45
Semester	PN705	PS	Pharmaceutical & Medicinal Chemistry -I	2	-	2	10								30			60
hei	PN706	PS	Natural Products-II	3	-	3	10								20	<u> </u>	10	60
Ser	MC704	BBS	Biochemistry –I	2	1	3	5								20	25	10	50
	PC703	PS	Pharmaceutics-I	2	1	3	10								20	20	5	45
Third	MC705	BBS	Pathology	2	1	3	5					5			20	20	5	45
·	CP702	CS	Social Behavioural and Ethical Aspect in Pharmacy	2	-	2	10					10			20			60
er	PN707	PS	Pharmaceutical & Medicinal Chemistry -II	2	1	3									20	20		60
est	PT702	PS/CS	Pharmacology and Therapeutics-I	3	1	4	10				25				20			45
Semester	PN708	PS	Phytochemistry	3	1	4						5			20	20	10	45
	PC704	PS	Pharmaceutics-II	2	1	3	10								20	20	5	45
1 t	PC705	PS	Microbiology-I	2	1	3	10								20	20	5	45
Fourth	MC706	BBS	Biochemistry –II	2	-	2	5								20	25	0	50
	GE705	CS	Computer Applications and Informatics	1	1	2	10					10				40		40

Page35



											Asse	ssme	ent To	ools				
									Ħ							Prac	tical	
Semester	Code	Domain	Courses	Lecture	Practical	Total Units	Quizes	OSCE	<b>PBL</b> assessment	Attitude & Behavior	Case based assessment	Assignment	Presentation	Project Report	Mid Semester	work	oral	Final Exam
	PN709	PS	Pharmaceutical & Medicinal Chemistry-III	2	-	2									30			70
5	PT703	PS/CS	Pharmacology and Therapeutics- II	3	1	4	10				25				20			45
este	PT704	PS/CS	Pharmacology and Therapeutics- III	3	1	4					25				25			50
Semester	CP703	CS	Microbiology-II	2	1	3									20	30		50
Fifth	PC706	PS	Biopharmaceutics and Pharmacokinetics	3	-	3						10			30			60
<b>E</b>	PN710	PS	Pharmaceutical Analysis	3	1	4									20	20		60
	MC707	BBS	Basic Genetics	2	-	2	10								20		10	60
	PN711	PS	Pharmaceutical & Medicinal Chemistry-IV	3	-	3	10								30			60
5	PT705	PS/CS	Pharmacology and Therapeutics- IV	3	1	4	10								20	25		45
lest(	CP704	CS	Applied Pharmacokinetics	2	1	3						10			20	20		50
Semester	MC708	BBS	Immunology	2	-	2	10								20		10	60
Sixth	CP705	CS	Pharmacy Practice	3	-	3						20			20			60
N I	CP706	CS	Pharmaceutical Management	2	-	2								50				50
			Elective (choose from Area-II)	2	-	2	10					20						70
7	PC707	PS	Pharmaceutical Biotechnology	3	-	3	10								20		10	60
Semester	PC708	PS	Pharmaceutical Technology	3	1	4	10								20	20	5	45
Sen	CP707	CS	Hospital Pharmacy	2	-	2						10			20		10	60
nth	CP708	CS	Professional Skills in Practice	2	1	3	20	60		20								
Seventh	CP709	CS	Clinical Pharmacy and Pharmaceutical Care	3	1	4		5	20			10			20			45
S			Elective (choose from Area-III)	2	-	2	10					20						70
L	PT706	PS	Toxicology	2	-	2	20								20			60
ste	PT707	CS	Pharmacogenomics	2	-	2	20											80
ue:	CP710	CS	Public Health Pharmacy	2	-	2	10								20		10	60
Semester	CP711	CS	Pharmacoepidemiology & Pharmacovigilance	2	-	2						10	10		20			60
	CP712	CS	Pharmacy Laws and Drug Regulations	1	-	1	20											80
Eighth	CP713	CS	Biostatistics	1	-	1						30						70
	PT708	CS	Integrated Problem Based Learning	1	-	1	25		75									
	CP714	CS	Calculations in Practice	0	-	0												100



		9.2.Seminar R	ubrics									
udent Presenter:	ter: Grading Scale: F D+ C		С	C+	В	B+	Α	<b>A</b> +				
valuator:	Date:											
Knowledge & content	1 (below 40)	2 (40-60)	3 (60-80)				4 (8	80-100	)	•		Score
Organization and Presentation	Hard to follow; sequence of information jumpy	Most of information presented in sequence	Information logical follow				to in	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	clear u	Material sufficient forMaterialclearunderstandingANDeffectively presentedexceptional			anding		AN			
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		ar	Demonstrated full knowledge; answered all questions with elaboration						
Presentation Skills	· · · · ·											I
Graphics (use of PowerPoint)	Uses graphics that rarely support text and presentation	Uses graphics that relate to text and presentation	Uses graphics that t and explain text and presentation presentation		text an	d						
Mechanics	Presentation has more than 10 misspellings and/or grammatical errors	Presentation has no more than 5 misspellings and/or grammatical errorsPresentation has no more than 2 misspellings and/or grammatical errorsPresentation has no misspelling or grammatical errors		isspelling	S							
Eye Contact	Reads most slides; no or just occasional eye Contact	Refers to slides to make points; occasional eye contact	Refers to s eye conta	slides	to mal	ke poin			o slides d with a		ke point e	5;
Elocution - not ability to speak English language	Mumbles and/or Incorrectly pronounces some terms	Incorrectly pronounces some terms	Incorrecti terms	y p	ronoun	ces f			precise iation c		rms	
Intonation Voice is low; difficult to hear		Voice fluctuates from low to clear; difficult to hear at times			ear well a	it						
Length and Pace	Short; less than 30 min	Short 40 min OR long >50	Adequate	e 40-4	15 min		A	ppropi	riate (45	-50 mi	n)	
	Rushed or dragging throughout	Rushed or dragging in parts	Seminar r	mostl	y well-p	baced	W	/ell-pa	ced thro	oughou	ıt	



#### **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.

#### **Facilities for Teaching**

Dubai Pharmacy College 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. DPC 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 handouts 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 (BPharm) degree subject to fulfilling the following requirements:

• Completion of all courses, Professional Practice Experience 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 164 credit hours (CH), is organized to include 132 CH core requirement courses, 6 CH elective courses and 12 CH general education courses and 14 CH of Professional Practice Experience

• 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 DPC 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 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 DPC 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 DPC.
- **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**

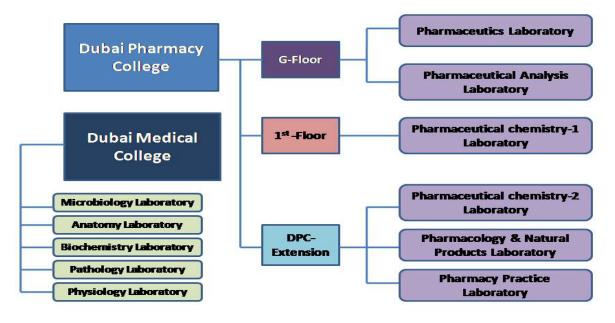
Dubai Pharmacy College (DPC) provides all educational support facilities to its students. The students get the best scientific training and knowledge which will make them eligible as pharmacists to boost the vast scientific and industrial development of U.A.E.

# **COLLEGE BUILDING**

The College building, on the ground floor has five laboratories, a model pharmacy with a drug information center, administrative and faculty offices, a meeting room and a reception section. On the first floor, are housed three laboratories, four lecture rooms, student's union office, students' common room, and chemical and glassware store. The animal house is located in a building adjacent to the College. 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

DPC possesses well-equipped laboratories for each discipline. There are eight 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 DPC.

# **STUDY ROOMS**

DPC 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.

# **CENTRAL LIBRARY**

The Central Library, housed in DMCG adjacent to DPC 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
Saturday	10.00am – 2.00pm

#### **COMPUTER LABORATORY**

The Computer Laboratory is helpful in teaching of English language, computer science, pharmacy practice, pharmaceutical care and clinical pharmacy courses. The Computer Laboratory, well equipped with thirty three computers, have Internet connections along with thirty three 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 DPC 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**

DPC 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. DPC 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. DPC 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

DPC 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 DPC. 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

DPC 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

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

Career Guidance sessions at DPC 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**

DPC 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 DPC means the number of credit hours a student is registered for and has to attend weekly classes. In DPC 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.



# **Appendix A**

# **Professional Practice Experience**



#### Internship

The aim of this procedure is to make sure that the students of DPC 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 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 second and third year of B. Pharm.

#### **PPE002:**

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

#### **PPE003:**

Professional Practice Experience in Hospitals for 600 hours during fourth year of B. Pharm.

#### 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 DPC education program, has been given more emphasis to improve its implementation in the present curriculum and the number of hours have been rescheduled to 900 to be distributed as follows:

1. Professional Practice Experience (PPE 001) in **Community Pharmacy** for not less than 200 **hrs.** 

2. Professional Practice Experience (PPE 002) in **Pharmaceutical Industry** for **not less than 100hrs (2 credit hours)** 

3. Professional Practice Experience (PPE 003) in Hospitals for not less than 600hrs (12 credit hours).

# **Professional Practice Experience Test (PPET)**

After the completion of PPE, students will be evaluated with structured evaluation checklists and oral examinations for PPE 01 and PPE 03, and written test for PPE 02 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 DPC 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
- **LOS** 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
Total	the student should achieve at least 70% marks to be considered mandatony	100

**Note:** 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)
- o Storage in CP
- o Purchasing Methods in CP
- Dispensing of Prescriptions
- Calculation and preparation of Prescriptions
- o Dealing with Expired Medicines in CP
- o Preceptor and Physician Interaction
- Dealing with OTC
- o 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.
- 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
Tota		50

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

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. 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.** Pharmacy in the hospital should also be approved by Ministry of Health and Department of Health.
- **c.** The hospital pharmacy should have at least five licensed (MOH / DOHMS) pharmacists under its employment.
- d. All activities related to patients, drugs and dispensing in the pharmacy must be computerized.

# Learning Outcomes of Advance Professional Practice Experience (PPE003)

- **LO1** Identify basic steps of proper outpatient, inpatient care and proper medication processing according to current standards of care unique to hospitals and health care systems.
- **LO2** Evaluate prescription drug order for completeness, accuracy of dosing, route of administration, drug-drug interaction and drug-disease interaction
- **LO3** Apply calculations required for compounding, dispensing and administering medications with proper conversions between metric, and apothecary system of weights and measures
- LO4 Practice proper prescription checking, pricing, preparing, labelling, and storage
- LO5 Identify all functions of dispensing and labelling modules in electronic pharmacy system

- **LOG** Apply guidelines and standards of practice for preparation, storage, in process quality control, and administration of sterile dosage forms and parenteral nutrition products in various pharmacy practice settings
- **LO7** Resolve prescription problems regarding questionable or unclear medication orders and explain any medication errors such as missed doses, incorrect doses, or incorrect drugs.
- LO8 Detect and report medication errors, adverse drug reactions and drug interactions
- **LO9** Recognize Drug distribution systems and policy of dispensing special orders in hospitals: Outpatient and in-patient dispensing
- LO10 Analyze and resolve problems associated with patient drug therapy
- **LO11** Recognize hospital guidelines and policy for ordering, recording and dispensing narcotics in both inpatient and outpatient settings
- **LO12** Recognize hospital guidelines and policy for proper inventory control
- **LO13** Communicate effectively with patients and provide proper patient counselling with appropriate terminology
- **LO14** Establish a prospective therapeutic management plan that includes therapeutic endpoints, monitoring parameters, individualization of dosages, and patient counselling.
- **LO15** Assess patient medication needs on discharge solving the problems such as drug and dosage discrepancies, where prescriptions should be filled, and when prescriptions are needed
- **LO16** 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 rounds 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 work rounds on a consistent basis and communicate to other on rounds 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 work rounds 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.** Communicate developments to the unit pharmacist if he or she is unable to attend all or part of rounds.

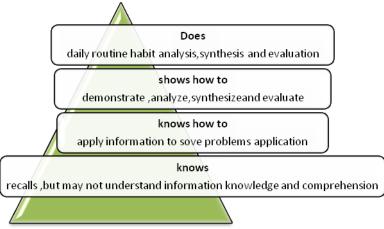


**7.** At the end of the day, the students and their supervisors can have a lecture regarding the cases they faced during the daily round to discuss any modification or to clarify any doubt.

#### **Evaluation of student's performance:**

Preceptor from Dubai Pharmacy College (DPC) will be guiding the students throughout their training. Weekly visit will be done by the faculty member of DPC to monitor the students training and have discussions with preceptors and students separately. During a rotation, the preceptor will assess the student's performance and provide feedback about the strengths and areas for improvement. The preceptors will make these assessments using evaluation forms and performance criteria that are based on goals and objectives out lined in the rotation syllabus or manual. Therefore, before the rotation begins, the preceptor and the student should meet and review the rotation goals and objectives, students' performance expectations and criteria to measure performance.

The rotation goals and objectives are statements that communicate the level of performance and activity of the students which are expected from them to demonstrate. Typically, rotation goals and objectives communicate that the students is expected to provide patient care successfully in the clinical setting.



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 PPE003**

Total marks for evaluation of PPE03 are 200, which are distributed as:

S. No.	Particulars	Marks Allotted
1.	Out - patient Internship	35
2.	In - patient internship.	35
3.	Floor Stock Supply and Inspection	25
4.	I.V admixtures / TPN services and chemotherapeutic admixtures.	25
5.	Patient care rounds including	25
6.	Patient counseling including	20
7.	Attitude	10
8.	Attendance	10
9.	Oral exam	15
	Total	200

# **Overall Evaluation of PPE**

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



# **Placement of Alumni**





	DPC 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. Heyam Saad</b> Professor in Pharmaceutics	M. Pharm. Ph. D. (Pharmaceutics).	University of Khartoum (Sudan) University Bradford (UK)	1996 2000
<b>Prof. Aliasgar Fakruddin</b> <b>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 Practice Department Professor in Clinical Pharmacy	MPharm PhD (Clinical Pharmacy)	RGUHS, India University Science Malaysia	2003 2011
<b>Prof. Naglaa Gamil</b> Chief Academic Officer Professor,Pharmaceutical & Medicinal Chemistry Department	M.Pharm. (Pharmacognosy) Ph.D.(Pharmacognosy & Phytochemistry).	Cairo University (Egypt) Cairo University (Egypt)	1998 2004
<b>Dr. Amina Mahdy</b> Head and Associate Professor in Pharmacology & Therapeutics	M. Sc. (Pharmacology & Toxicology) Ph.D. (Pharmacology & Toxicology)	Cairo University (Egypt) Cairo University (Egypt)	1996 2002
<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>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

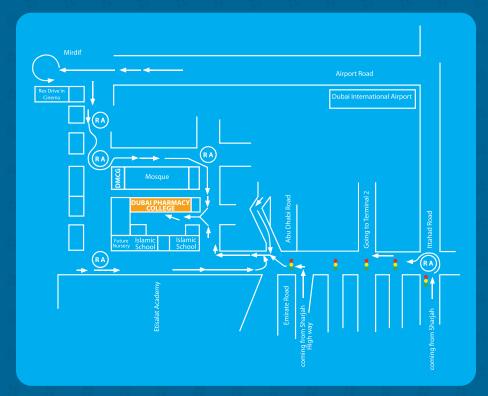


	DPC FACULTY MEMBERS		
Name	Degrees	Institution	Year
<b>Dr.Juliana F Roos</b> Head, Professional Practice Experience Unit Associate Professor in Clinical Pharmacy	Knowledge Assessment of Pharmaceutical Sciences (KAPS) Phd (Pharmacy) Postgraduate Diploma in Clinical Pharmacy BSc Industrial Pharmacy BSc Pharmacy	University of Queensland, Australia UNIVALI (Universidade do Vale do Itajai)	2013 2007 2003 2000 1999
<b>Dr. Rawoof Khan</b> Assistant Professor in Pharmacology	MPharm PhD (Pharmacy)	Annamalai University, India Periyar Maniyammai University, India	2006 2014
Mrs.Doaa Kamal Assistant Lecturer in Clinical Pharmacy	M.Sc. (Clinical Pharmacy) BPharm	Jordan University (Jordan) Dubai Pharmacy College (UAE)	2010 2002
Mrs. Rana Sammour 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. Sara Salwan</b> Teaching Assistant	BPharm	Dubai Pharmacy College	2015
<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	
Prof. Shefa Mustafa Gawish,	Dr. Shifaan Khanday
Professor in Anatomy	Assistant Professor in Anatomy
Dr.Dalia Saa d	Dr. Neveen Salah El Dine,
Assistant Professor in Physiology	Professor in Biochemistry.
Dr.Abeer Abdel Moneim	Dr. Najlaa Raafat Abdl Raob,
Lecturer in Physiology	Lecturer in Biochemistry.
Dr. Rasha	Prof. Ghazala Mehdi
Assistant Professor in Physiology	Professor in Pathology
Dr. Wafiq Shafiq	Ms. Amal Horabi
Head, Educational Informatics Unit, Lecturer in Informatics	Lecturer in Computer Applications



PART -	TIME FACULTY	
Ph. D. (F Lecturer <b>Dr.Mari</b> Lecturer	Pakistan)	Prof Jinan PhD (UK) Assistant Professor in Islamic Studies
<ul> <li>(A) H</li> <li>1.</li> <li>2.</li> <li>3.</li> <li>4.</li> <li>5.</li> <li>6.</li> <li>7.</li> </ul>	OSPITALS Prof. Dr. Ali Syed Hussain, M.Sc., Ph.D.(USA) Director, Pharmaceutical Services, Coordinator, Professional Practice Experience, Dubai Health Authority-Dubai Mrs. Amal Ali Salem, B. Pharm. Chief Pharmacist Supervisor, Al Wasl Hospit Dubai. Mr. Moh'd Sameh Ali, B. Pharm. Chief Pharmacist, Supervisor, Rashid Hospit Dubai. Mr. Murtada Mohd., B. Pharm. Actg., Chief Pharmacist, Supervisor- Dul Hospital, Dubai. Mrs. Fareeda Al Khaja, B. Pharm. (Egypt)Chief Pharmacist Supervisor, Al Maktoum Hospital- Dubai. Ms. Lara Qadir Mafraq Hospital, Abu Dhabi Ms. HebaElkholy SKMC Hospital, Abu Dhabi Ms. Mahat Hussain Senior Pharmacist (Dubai Health Authority	<ul> <li>(B) PHARMACEUTICAL INDUSTRY</li> <li>1. Mr. Idrees Siddiqui Manager Technical Operatations Global Pharma Co LLC, Dubai- UAE</li> <li>2. Mr. Ijaz Sheikh Pharmaceutical Industry</li> <li>3. Mr. EjazShahid Pharmaceutical Industry</li> </ul>



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