



**DOW UNIVERSITY OF
HEALTH SCIENCES**

PHARM-D
Session 2023-24



PROSPECTUS

Dow College of Pharmacy

**Website : admissions.duhs.edu.pk
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Message of the PRINCIPAL



PROF.

DR.

SUMBUL SHAMIM
PRINCIPAL
Dow College of Pharmacy &
CHAIRPERSON
Department of Pharmacology
DUHS, Karachi.

I am delighted to welcome you to the Dow College of Pharmacy, an esteemed institution providing excellent pharmacy education in Pakistan. Dow College of Pharmacy is recognized for our inclusive ethos and commitment to the highest standards in education, which have made this institute into Pakistan's premier organization offering pharmacy education. We endeavor to set very high values of academic standards. Students aspire to attend our college in intent to accomplish their best. Together, we create a culture of accomplishments and achievements. Our outcomes are remarkable, leading to a prominent place for our alumni in the market and to the field of pharmaceutical sciences.

The Faculty of pharmaceutical Sciences, at Dow College of Pharmacy, Dow University of Health Sciences, was established in the year 2007 to provide quality pharmacy education combined with training at Hospitals and Pharmaceutical Industries of Karachi.

By providing excellent pharmaceutical education in a stimulating academic environment and thorough research, we enable our students to discover, evaluate and implement new vistas of knowledge to improve models of practice and methods of treatment in pharmacy.

We also strive to provide the concept of pharmaceutical ethics so as to mould the conduct and character of the future health care professionals. I am confident that with the team of committed faculty members and supporting staff, we will deliver the time tested human resources for the industry, health care system and society. My prayers are for the success of every student studying Pharmaceutical Sciences at the Dow College of Pharmacy, Dow University of Health Sciences, Karachi.

Thank You



Dean

Prof. Dr. Rabia Bushra
Dow College of Pharmacy,
Faculty of Pharmaceutical Science
M.Phil Program Director
Department of Pharmaceutics.
Dow University of Health Sciences-Karachi.

I feel immense pleasure to give my heartiest greetings to all my dear new students at College of Pharmacy, Ojha Campus, along with my dedicated team of faculty, staff, administration and alumni. I welcome you to the thrilling and nurturing environment of Dow College of Pharmacy, Faculty of Pharmaceutical Sciences, Dow University of Health Sciences, Karachi.

The Faculty of Pharmaceutical Sciences is recognized as one of the outstanding pharmacy education and research institutions. As, we offer a well-structured five-year Doctor of Pharmacy (Pharm D) program and have the privilege to offer a post-graduate program in Pharmaceutical Sciences as well. We are continuously working to put our efforts to be one of the leading organizations who can compete at national and international level in pharmaceutical education and research.

Our Faculty is our strength with their exclusive scientific knowledge and friendly approachable manner. We are dedicated to promoting excellence in the classroom, creating a student-centered learning environment, and maintaining personalized attention to our students.

Our innovative pharmacy semester system training provides our students with a well-rounded professional degree that ideally prepares them for a rewarding career in pharmacy, whether they choose community pharmacy, hospital pharmacy, clinical pharmacy, pharmaceutical industry, academia and research or any other career path. The profession of pharmacy is constantly evolving, and in response to this change, we are constantly implementing important and motivating curricular changes, integrating basic science with clinical practice and emphasizing on active learning, skills development and inter-professional collaboration. We continue to evolve and grow; what remains constant is our commitment to our students, our community and the profession with high ethical and professional standards.

As a Dean, I assure to continue the work towards progressive environment of faculty so that our students can reach out to our community with a sense of responsibility. I invite you to join us on the inspiring journey of becoming pharmacists with excellent human attributes who are always ready to serve the community by choosing various career paths as specialties of the pharmacy profession. You will find it a challenging, noble and satisfying career path. Wishing you all the best for a successful journey ahead.

DUHS VISION

To be a pre-eminent academic institution committed to changing and saving lives.

DUHS MISSION

Providing outstanding patient centered education, training and clinical care informed by cutting edge research and innovation generating and disseminating new knowledge.

STATEMENT OF PURPOSE (PHARM.D PROGRAM)

To provide comprehensive, progressive learning environment that encourages quality education, skill building, high ethical and moral standard in the future pharmacist who can contribute in innovative research, provide quality pharmaceutical care, consultancies and be at the forefront in providing novel pharmaceutical products.

HISTORY

Dow College of Pharmacy was established in 2007. Dow College of Pharmacy was upgraded as the Faculty of Pharmaceutical Sciences; Dow College of Pharmacy in the year 2014. Faculty of Pharmaceutical Sciences, Dow College of Pharmacy is a distinguished and well renowned entity working under the portal of Dow University of Health Sciences and recognized by Pharmacy Council of Pakistan and Higher Education Commission.

Under the Leadership of Principal, Prof Dr Sumbul Shamim, Dow College of Pharmacy provides highly proficient education to its students by utilizing rich resources provided by the university. Institute is equipped with high-end facilities for its students, researchers and faculty. The faculty includes 48 highly qualified faculty members, out of which 34 hold a PhD degree in their relevant field and are also HEC approved research supervisors. College of Pharmacy is currently offering a Pharm D, MPhil and PhD Programs.

Till 2023, Eleven batches of Pharm D program have graduated from this institute. The entire group of passed out Pharmacy graduates from DCOP are offering professional services in various national and multinational organizations within Pakistan and globally.

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OVERVIEW OF DOW COLLEGE OF PHARMACY

INTRODUCTION:

Dow College of Pharmacy was established in early 2008 and is now one of the top-ranked faculties of the Sindh province. Dow College of Pharmacy was upgraded to the Faculty of Pharmaceutical Sciences; Dow College of Pharmacy in the year 2014. Faculty of Pharmaceutical Sciences, Dow College of Pharmacy is a distinguished and well-renowned entity working under the portal of Dow University of Health Sciences and recognized by the Pharmacy Council of Pakistan and Higher Education Commission.

The aim is to train pharmacy students, who are the backbone of the healthcare system for practicing in various healthcare settings, including hospitals, communities, clinics, etc. we are actually transforming healthcare into a global hub of innovation and opportunity.

The **program** provides a rigorous background in a range of scientific disciplines that are critical to the success of modern pharmaceutical scientists in industry, government, and academia. Pharm.D is a five-year based program. The training also includes hands-on experience in hospitals and pharmaceutical settings. The First Batch of 123 students (morning) passed out in 2013 and presently, 731 students of our five batches are studying in the Pharm. D program. After the successful running of the Morning shift, the evening program was launched in 2015. Under the Leadership of **Principal, Prof. Dr. Sumbul Shamim**, Dow College of Pharmacy provides highly proficient education to its students by utilizing rich resources provided by the university. Institute is equipped with high-end facilities for its Students, Researchers, and Faculty. The faculty is comprised of 48 highly qualified faculty members, with 33 Ph.D. degree holders in relevant fields and also HEC Ph. D approved research supervisors. During their study of courses, students are also provided with the opportunity to carry out clinical ward rounds under the supervision of experienced faculty members and healthcare professionals. This training enables the potential pharmacist to play a significant role in strengthening the quality of health care services in our society. Students of fourth and fifth professionals complete their training in Pharmaceutical service centers

of Dow University Hospital and Civil Hospital (ambulatory dispensing area, emergency room pharmacy, in-patient pharmacy, out-patient pharmacy, bulk store, satellite pharmacy) and different wards (unit) like Medical ICU, Neonatal care unit, Cardiac care unit, cardiac ward, institute of chest diseases, Gynaecology ward, Neuro. / Psychiatry ward, Gastroenterology ward, Paediatric ward, Dialysis center. This clinical training is conducted at Dow University Hospital and Civil Hospital. Till 2022, ten batches of Pharm. D program have graduated from this institute. The entire group of passed-out Pharmacy graduates from Dow College of Pharmacy are offering professional services in various national and multinational organizations, both within and outside Pakistan.

The Faculty of Pharmaceutical Sciences, Dow College of Pharmacy comprised of three capacious building having an area of 82500 sq.ft overall. Each building has fully air-conditioned spacious lecture halls equipped with multimedia, and fully equipped laboratories including laboratories for Pharmaceutics, Pharmacology, Pharmaceutical Chemistry, Pharmacognosy, Industrial Pharmacy, Quality Management, Instrumentation, Anatomy, Physiology, Pathology, Microbiology, Physical Pharmacy, Pharmaceutical Preparation, Compounding and Dispensing and Pharmaceutical Biochemistry.

The university offers a full-time postgraduate program since 2013 in the key areas of Pharmacy and has developed the curriculum format to allow a greater range of options within the program to meet the requirements of pharmacists who have a passion for teaching and research careers in pharmacy and allied health sciences. It provides a sound understanding of drug and disease and diagnostic and instrumental approaches at the molecular level applying contemporary techniques of modern biomedicine. It provides opportunities to acquire and develop the skills of synthesis, analysis, and decision-making, required for careers in the field of pharmaceutical research. Thus, the students are trained as subject specialists, a researcher, and resource people, well equipped with the methodologies of modern trends of teaching and research in various disciplines of pharmaceutical sciences. Research students at DCOP is guided by a team of highly qualified HEC-approved supervisors, they are also provided facilities to work in advanced labs that will help in equipping the practicing pharmacists with the skills to progress into higher levels in all professions of pharmacy. This will enable them to meet the respective intra-disciplinary and cross-disciplinary challenges on the frontiers of pharmaceutical sciences including *in vitro*, *in vivo*, cellular, computer-aided-drug designing, and screening at molecular and genetic levels, etc.

The academic activities at Faculty of Pharmaceutical Sciences, Dow College of Pharmacy are divided into five major disciplines:

1. Pharmacology.
2. Pharmaceutics.
3. Pharmaceutical Chemistry.
4. Pharmacognosy.
5. Pharmacy Practice

PHARMACOLOGY

Pharmacology is the study concerned with all aspects of actions of drugs and other chemicals on living system. It explores the action of drugs, adverse effects, drug interaction, contraindications and their pharmacokinetics. It provides pre-clinical and clinical education in areas of Pharmacology, Therapeutics and Toxicology for undergraduate and post graduate students. Pharmacological research areas include Cardiovascular Pharmacology, Clinical Pharmacology, Molecular and Biochemical Pharmacology, Neurosciences and Inflammatory Pharmacology.

PHARMACEUTICS

Pharmaceutics is the science of drug manufacturing. It involves the processes from new chemical entity turning into a dosage form, modification into the existing formulation in order to enhance their safety and efficacy. This field encompasses the knowledge and guidelines for the manufacturing of formulation, facilities used for manufacturing and regulations for the pharmaceutical manufacturing and marketing.

PHARMACEUTICAL CHEMISTRY

Pharmaceutical Chemistry addresses chemical aspects of drug development, analytical procedures, important reactions involved in quantification and quality testing of drugs. Medicinal chemistry is the most important aspect of this branch of Pharmacy, along with the other courses which make the students aware and to handle various instruments to be used for the analytical purposes including pH meter, Conductivity meter, UV-Visible Spectrophotometer, HPLC, Mass Spectrophotometer, IR and NMR Spectrophotometer, etc.

PHARMACOGNOSY

Pharmacognosy focuses on natural sources of the drugs including plants, animals and minerals. This science includes study related to Procurement of drugs from said sources, effects of these drugs on animals as well as human subjects, drug profiles etc. It also covers the clinical aspects of herbal medicines with quality control, toxicity studies as well as herbal drug interactions. It also elaborates the industrial aspects that cover the cosmaceuticals, nutraceuticals and exploration of new herbal drugs.

PHARMACY PRACTICE

Department of Pharmacy Practice was established in the year 2014 Dec. 22nd, as per the requirements set forth by the Pharmacy Council of Pakistan. The curriculum of pharmacy practice has a major focus on practicing clinical skills in the community, hospital and clinical pharmacy setups learned in the classroom. It is mandatory for student to attend Ward rounds in two different hospital settings i.e. civil hospital, Dow University hospital and OICD, OJHA Campus. Students conduct ward rounds under the supervision of teaching faculty and with the facilitation of doctors to develop an understanding of patient history taking, lab data interpretation and enable

them to suggest clinical interventions (i.e. via dose calculations and adjustments, detection of ADRs and interactions, following standard treatment guidelines and evidence based medicines).

Program offered at Dow College of Pharmacy

Under graduate: Pharm. D “Doctor of Pharmacy” (Morning & Evening)

Post Graduate:

M.Phil offered in all five major discipline.

Ph.D in Pharmacology .

SCOPE OF PHARMACY

Graduates of pharmacy program can work as an entrepreneur or in hospital setup. A pharmacist can find employment in a variety of fields, including pharmaceutical industries, hospitals, quality control, sales, marketing, research and development, and education. Pharmacy is a relatively stable career with room for advancements. The options a pharmacy graduates can consider include:

HOSPITAL PHARMACY

Hospital pharmacy is a health care service where a pharmacist engages himself in the selection, preparation, storage, compounding and /or dispensing of medicines and medical devices as well as advice patients, doctors, nurses and all healthcare professionals on how best to use them safely, effectively and efficiently.

COMMUNITY PHARMACY

As a community pharmacist, a pharmacist is *responsible for dispensing prescription and over-the-counter medicines that help people to* maintain and improve their lives. Since they can give rationale advice about health and medication to walk-in patients without an appointment, community pharmacists are regarded as the healthcare provider with the greatest accessibility to the general public.

DRUG MANUFACTURING

Pharmaceutical industries employ pharmacy graduates where they work as production pharmacist and are responsible of supervising and managing the manufacturing processes of pharmaceutical products. They ensure compliance with quality standards, regulatory requirements and Good Manufacturing Practice (GMP) throughout the manufacturing process.

QUALITY ASSURANCE

Prior to the drug being packaged and bottled, a quality check step is required in the drug production process. The purpose of this step is to ensure that no harmful products are being sold. The importance of quality assurance in the pharmaceutical sector cannot be denied and requires services of a pharmacist.

QUALITY CONTROL MANAGER

Pharmacist can work as a Quality Control Manager, which is a continuation of the previous job scope. Pharmacists are employed to ensure that the medications are safe for consumption. They will also establish

appropriate consumption limits for particular conditions as part of their work. Therefore, these people ought to be familiar with regional laws as well.

SALE AND MARKETING

In sales and marketing, pharmacy companies frequently hire recent graduates where they go to hospitals, pharmacies, and clinics to persuade them to stock their medications. Without a doubt, this position calls for strong interpersonal and communication skills.

RESEARCH AND DEVELOPMENT

In R&D, the main focus is on discovering new and improved medications or improving and enhancing already-available medications. This step may also involve minimizing side effects and securing patents for the novel medications. The pharmacist always has a chance to excel in this field.

HIGHER EDUCATION

There are many options for higher education in addition to looking for a job. Master and doctoral degrees are offered in different disciplines of pharmacy where the student can opt any depending on his personal interest.

Eligibility Criteria

- HSSC Pre-Medical or equivalent examination (e.g. A-Level, 12th grade etc) duly certified by IBCC with minimum 60% marks.
- Minimum passing marks in entry test shall be 25%
- Candidate's PRC & Domicile of Sindh

NUMBER OF SEATS

SEAT DISTRIBUTION FOR Pharmacy COURSE at Dow College of Pharmacy

OPEN MERIT	60
Self-Finance (Morning)	40
Self-Finance (Evening)	50
TOTAL	150

CATEGORIES OF SEATS

A. Open Merit (merit cum choice)

B. Self- Finance Morning & Evening (merit cum choice)

A. OPEN MERIT (merit cum choice)

- ☐ **60 (Sixty)** seats have been reserved for Open Merit candidates with Sindh domicile who have studied Matric / O Level AND Inter / A Level.

B. Self- Finance (Morning and Evening) [merit cum choice]

- ☐ **40 (Forty)** seats for morning and **50 (Fifty) seats for evening** are reserved for candidates, fulfilling the eligibility criteria of open merit to be selected on merit cum choice basis.

NOTE:

Admissions will be offered on MERIT CUM CHOICE BASIS IN both CATEGORIES.

Fee Structure of PHARM. D.

SESSION 2023-24

Amount in PKR.		
FEE TYPE	Open Merit	Self-Finance
Admission Fee (Once only)	50,000	60,000
Tuition Fee (Yearly)	180,000	350,000
Document Verification Charges (Once only)	2,500	2,500
Student Activity Fee (Yearly)	10,000	10,000
Library Charges (Yearly)	10,000	10,000
Total	252,500	432,500

- Transport Fee (Optional) Rs. 36,000/- per year.

RULES FOR THE PAYMENT OF FEE

Fee for 2nd, 3rd & 4th year tuition fee (of the respective categories) will have to be paid within the specified time.

Late fee for succeeding years will be charged if fee is not paid within the provided deadline as per rates below:

- First month (after lapse of first month % 2.5.....of tuition fee
- Second month % 5.0.....of tuition fee
- Third month %7.5.....of tuition fee
- Fourth month%10of tuition fee

Fee of all categories will be increased by 10% every year.

AFTER FOUR MONTHS OF NON-PAYMENT, THE SEAT IS LIABLE TO BE CANCELLED AND STUDENT WILL NOT BE ALLOWED TO APPEAR IN ANY EXAMINATION.

- Fee deposited is refundable as per the Refund policy guidelines of the DUHS.
- Taxes will be applied as per the FBR rules.
- Hostel and Transport fee will be valid till December, 2024.
- Amounts stated in the fee vouchers are excluded of all Bank Charges.
- The Fee Structure may be revised by the university at any time during the course of the study, due to unavoidable circumstances.

ACCREDITATION DETAILS OF DOW COLLEGE OF PHARMACY, DUHS

Dow College of Pharmacy aims to offer highest standard of education and research in the country. We endeavor to achieve our objectives in alignment with the pertinent regulatory requirements. In this regard we have always followed guidelines from the “Higher Education Commission of Pakistan (HEC)” and “Pharmacy Council of Pakistan (PCP)”.

The Pharm.D Morning and Evening Programs and Postgraduate Programs (M.Phil in all 5 disciplines and PhD in Pharmacology) offered by Dow College of Pharmacy, are accredited by Pharmacy Council of Pakistan and Higher Education Commission of Pakistan.



The Higher Education Commission of Pakistan is an independent, autonomous, and constitutionally established institution of primary funding, overseeing, regulating, and accrediting the higher education efforts in Pakistan. We feel delighted to declare accreditation of Dow College of Pharmacy by the HEC, Pakistan.



The Pharmacy Council Pakistan (PCP) is the regulator established in terms of the Pharmacy Act, 1967 to regulate pharmacists, pharmacy support personnel and pharmacy premises in Pakistan. PCP is a professional body responsible for the registration of pharmacists and promotion of pharmacy education in the country. Dow College of Pharmacy has its graduate and undergraduate programs accredited by the PCP.



SCHEME OF COURSES FOR PHARM-D

(FIVE YEAR SEMESTER SYSTEM)



1ST Professional Pharm-D

Semester- I			Semester-II		
COURSE NO	SUBJECT	CR HR	COURSE NO	SUBJECT	CR HR
ENG-300	English-A (F English)	2	ENG-301	English-B (Communication & Writing skills)	2
PD-301	Physical Pharmacy-I [Th]	3	PD-302	Physical Pharmacy-II [Th]	3
PD-303	Physical Pharmacy-I [Lab]	1	PD-304	Physical Pharmacy-II [Lab]	1
PD-305	Pharmaceutical Mathematics	3	PD-306	Pharmaceutical Organic Chemistry-II [Th]	3
PD-307	Pharmaceutical Organic Chemistry –I [Th]	3	PD-308	Pharmaceutical Organic Chemistry-II [Lab]	1
PD-309	Pharmaceutical Organic Chemistry –I [Lab]	1	PD-310	Pharmaceutical Biochemistry-II [Th]	3
PD-311	Pharmaceutical Biochemistry-I [Th]	3	PD-312	Pharmaceutical Biochemistry-II [Lab]	1
PD-313	Pharmaceutical Biochemistry-I [Lab]	1	PD-314	Physiology - II [Th]	3
PD-315	Physiology - I [Th]	3	PD-316	Physiology [Lab]	2
PD-317	Anatomy & Histology-I [Th]	2	PD-318	Anatomy & Histology-II [Th]	2
			PD-320	Anatomy & Histology [Lab]	1
	Total Cr. Hr	22		Total Cr. Hr	22

2nd Professional Pharm-D

Semester-III			Semester-IV		
Course No	Subject	Cr Hr	Course No	Subject	Cr Hr
ISL-400	Islamic Studies	2	PKS-401	Pakistan Studies	2
PD-401	Pharmaceutical Microbiology and Immunology- I [Th]	3	PD-402	Pharmaceutical Microbiology and Immunology - II [Th]	3
PD-403	Pharmaceutical Microbiology and Immunology -I [Lab]	1	PD-404	Pharmaceutical Microbiology and Immunology -II [Lab]	1
PD-405	Pharmaceutical Preparation and Dosage form Science-I [Th]	3	PD-406	Pharmaceutical Preparation and Dosage form Science -II [Th]	3
PD-407	Pharmaceutical Biostatistics	3	PD-408	Pharmaceutical Preparation and Dosage form Science [Lab]	2
PD-409	Pharmacology & Therapeutics -I [Th]	3	PD-410	Pharmacology & Therapeutics -II [Th]	3
PD-411	Pharmacology & Therapeutics -I [Lab]	1	PD-412	Pharmacology & Therapeutics -II [Lab]	1
PD-413	General Pharmacognosy [Th]	3	PD-414	Pathology-I [Th]	2
PD-415	Pharmacognosy - I [Lab]	1	PD-416	Chemical Pharmacognosy [Th]	3
			PD-418	Pharmacognosy - II [Lab]	1
	Total Cr. Hr	20		Total Cr. Hr	21

3rd Professional Pharm-D

Semester- V			Semester- VI		
Course No	Subject	Cr Hr	Course No	Subject	Cr Hr
PD-501	Pharmacology & Therapeutics-III [Th]	3	PD-502	Pharmacology & Therapeutics –IV [Th]	3
PD-503	Pharmacology & Therapeutics-III [Lab]	1	PD-504	Pharmacology & Therapeutics-IV [Lab]	1
PD-505	Pathology-II [Th]	2	PD-506	Computer & its Application in Pharmacy [Th]	3
PD-507	Pathology [Lab]	1	PD-508	Computer & its Application in Pharmacy [Lab]	1
PD-509	Pharmaceutical Analysis and Instrumentation-I [Th]	3	PD-510	Pharmaceutical Analysis and Instrumentation-II [Th]	3
PD-511	Pharmaceutical Analysis and Instrumentation-I [Lab.]	1	PD-512	Pharmaceutical Analysis and Instrumentation-II [Lab.]	1
PD-513	Advanced Pharmacognosy - I [Th]	3	PD-514	Advanced Pharmacognosy - II [Th]	3
PD-515	Pharmacognosy - III [Lab]	1	PD-516	Pharmacognosy - IV [Lab]	1
PD-517	Compounding & Dispensing Pharmacy [Th]	3	PD-518	Community Pharmacy [Th]	3
PD-519	Compounding & Dispensing Pharmacy [Lab]	1			
	Total Cr. Hr	19		Total Cr. Hr	19

4th Professional Pharm-D

Course No	Subject	Cr Hr	Course No	Subject	Cr Hr
PD-601	Hospital Pharmacy-I [Th]	3	PD-602	Hospital Pharmacy-II [Th]	3
PD-603	Industrial Pharmacy-I [Th]	3	PD-604	Industrial Pharmacy-II [Th]	3
PD-605	Industrial Pharmacy-I [Lab]	1	PD-606	Industrial Pharmacy-II [Lab]	1
PD-607	Pharmaceutical Quality Management-I [Th]	3	PD-608	Pharmaceutical Quality Management-II [Th]	3
PD-609	Pharmaceutical Quality Management-I [Lab]	1	PD-610	Pharmaceutical Quality Management-II [Lab]	1
PD-611	Clinical Pharmacy- I [Th]	3	PD-612	Clinical Pharmacy –II [Th]	3
PD-613	Clinical Pharmacy-I [Lab]	1	PD-614	Clinical Pharmacy-II [Lab]	1
PD-615	Clinical Pharmacognosy [Th]	3	PD-616	Medicinal Chemistry-II [Th]	3
PD-617	Medicinal Chemistry-I [Th]	2	PD-618	Medicinal Chemistry-I [Lab]	1
	Total Cr. Hr	20		Total Cr. Hr	19

5th Professional Pharm-D

Semester IX			Semester X		
Course No	Subject	Cr Hr	Course No	Subject	Cr Hr
PD-701	Clinical Pharmacy-III [Th]	3	PD-702	Clinical Pharmacy-IV [Th]	3
PD-703	Clinical Pharmacy-III [Lab]	1	PD-704	Clinical Pharmacy-IV [Lab]	1
PD-705	Pharmaceutical Technology-I [Th]	3	PD-706	Pharmaceutical Technology-II [Th]	3
PD-707	Forensic Pharmacy-I [Th]	2	PD-708	Pharmaceutical Technology [Lab]	2
PD-709	Biopharmaceutics & Pharmacokinetics-I [Th]	3	PD-710	Forensic Pharmacy-II [Th]	2
PD-711	Pharmaceutical Marketing & Management-I [Th]	3	PD-712	Biopharmaceutics & Pharmacokinetics -II [Th]	3
PD-713	Medicinal Chemistry- III [Th]	3	PD-714	Biopharmaceutics & Pharmacokinetics [Lab]	2
PD-715	Medicinal Chemistry- II [Lab]	1	PD-716	Pharmaceutical Marketing & Management-II [Th]	3
	Total Cr. Hr	19		Total Cr. Hr	19

SUMMARY OF COURSES CR.Hrs

	1 st Semester	2 nd Semester	Total
Cr. Hrs	Cr. Hrs	Cr. Hrs	Cr. Hrs
1 st Prof.	22	22	44
2 nd Prof	20	21	41
3 rd Prof	19	19	38
4 th Prof	20	19	39
5 th Prof	19	19	38
Total	100	100	200

ASSESSMENT METHODS

EXAMINATION RULES

CRITERIA FOR AWARD OF DEGREE:

1. For the award of degree students must pass all the courses taught during five years education of Pharm.D.

CRITERIA FOR PROMOTION TO NEXT ACADEMIC YEAR:

1. Any Students, who fails to pass the **First Professional Exam** in five chances availed or unavailed, shall cease to pursue further Pharmacy Education.
2. A student would be promoted to next higher class upon clearing **all courses of previous academic year(s)**. In case of any misinterpretation and discrepancy, Principal's committee decision would be the final.
3. Attendance in each course will be compulsory for all students and no students will be eligible to appear in any course in the University examination unless he/she has attended 75% percent attendance.
 - i. The attendance of students admitted in the university will be counted from the 1st day of semester and not from the date of admission.
 - ii. Students called for national duty such as participation in Olympics, National or, Inter- varsities, games or going to perform Hajj would be given exemption in attendance. These cases would be decided on individual basis.
 - iii. If a student is unable to attend classes continuously for 15 days or more without informing the Dean/Chairpersons of the Departments (in writing) his/her admission will stand cancelled. In case of illness or other similar situations, application along with a medical certificate from a registered medical practitioner duly verified by the Senior Medical Officer of the University must be submitted within two days after the ailment.
 - iv. Original attendance record is to be submitted to the Principal for record and future reference.
4. The percentage of pass marks in each subject is not less than 50 percent both in theory and practical.
5. Grace marks are not allowed.
6. If a student fails in Theory and Pass in Practical examination, he/she will have to appear in theory exam and not in practical examination so is the case vice versa.
7. If fails in theory and practical both, he/she has to appear in both examination.
8. Distribution of 100 marks for Theory papers is as follows:
 - i. 30 Marks for Mid Term examination (40% Objective, 60% Subjective).
 - ii. 70 Marks for Terminal examination (40% Objective, 60% Subjective)
9. OSPE (LAB) examination is of 100 marks. External examiner shall always be present with internal examiner for written, oral and practical parts of exam.

Marks distribution of OSPE is as follows.

 - i. 40 Marks for non-observable stations.
 - ii. 20 Marks for interactive Station for Viva

iii. 20 Marks for Lab Performance in Exam

iv. 20 Marks for Internal Evaluation.

SCHEDULE OF RETAKE EXAMINATION

Retake Exam for Odd Semester will be conducted just after the Even Semester exams. And Retake Exam of Even Semester will be conducted after the result of Even Semester Exam.

MAXIMUM DURATION FOR COMPLETION OF DEGREE

1. Degree enrollment of the Pharm.D will remain valid for two more years after the expiry of the required duration for the completion of the Pharm.D degree (i.e 5 Year).
2. However a student unable to complete his/her degree requirement within the validity of his/her enrollment, will have to re-validate / extend his/her enrollment for not more than 2 years by paying a prescribed fee with the permission of the Principal.

GRADING SYSTEM

Numerical Grade (NG)

Assessment of performance on the basis of marks out of 100 fixed for a course of 1 or 3 credit hours unit is NG.

Alphabetical Grade (AG)

Equivalent of numerical grades in terms of alphabets shall be termed as alphabetical grades. (Each letter carries a value in terms of numerical points).

Grading

Marks obtained in Percentage Range	GPA	GRADE
80-100	4.0	A+
75-79	4.0	A
70-74	3.7	A-
67-69	3.3	B+
63-66	3.0	B
60-62	2.7	B-
56-59	2.3	C+
50-55	2.0	C
00-49	0.0	F
Absent	0.0	Abs

DUHS STUDENT'S CONDUCT RULES

A. STUDENT'S CONDUCT RULES

(Applicable to Undergraduate and Postgraduate students of the University and its constituent or affiliated institutions)

These rules are applicable to all students who are admitted to the Dow University of Health Sciences, and include undergraduate and postgraduate medical and dental students, nurses and all those being trained in medical and allied health sciences.

1. No student or group of students shall form society / association / organization with permission from Principal of College.
2. No outsider will be invited by the students to address any meeting at the University or its constituent college / institute / school, hospital etc whether academic, social, religious or political (without prior written permission of the authorities). Decision of authorities will be final and taken on case to case basis.
3. Students are not allowed to paste any poster, pamphlet or fix banners on the wall. Graffiti on walls (wall chalking) of the premises of the University or its constituent college / institute / school, hospital etc be they, academic, social, religious or political, are also not allowed.
4. During teaching hours and / or Clinical posting, students are prohibited to play or roam around in the premises.
5. No student or group of students shall arrange any program, picnic, musical concert sports activities etc, on their own, without prior written permission from the authorities.
6. No student or group of students are allowed to collect money for any purpose whatsoever.
7. University / College Identity Card, (ID) should be displayed, at all times, when the students are in the premises of the University or its constituent college / institute / School / Hospital etc. Faculty members and security staff are authorized to check I.D cards at any time.
8. If any student wants to publish his/her scientific or literary article, he/she must get the draft approved, by the authorities. They are also required to submit the copy of the final article / paper (to be published) for record purposes to the University.
9. Students will not be allowed to address the media or the national press on any subject.
10. Students are forbidden to address higher authorities directly. Any communication intended for higher authorities, needs to be routed through proper channel (Vice Chancellor / Principal / Medical Superintendent / Director)
11. Smoking, pan chewing, littering, spitting and other activities, prejudicial to the conduct are prohibited in the classroom, laboratories, seminar / tutorial rooms, library during and after college hours and wards during clinical postings.
12. Unless specifically permitted, no student or group of students are allowed to enter administrative and department offices / telephone exchange, or teaching areas like laboratory, lecture hall of the institution or department and / or use office equipment(s) / machinery, like telephone, computer, printer, typewriter, overhead projector, slide projector or multimedia etc.
13. No student is allowed to bring a weapon and/or ammunition, liable to cause injury, or any other harmful item, inside the premises.
14. No student or group of students will threaten, stop, harass, forcibly disallow or evict another bonafide student or group of students.
15. Misbehavior with faculty members and other staff members of the University and / or its constituent college / institute / school, hospital etc, by a student or a group of students is completely prohibited. Such misdemeanors would attract penalties as severe as expulsion and rustication.
16. Willful damage to either public or personal property in the University and / or its constituent college / institute / school etc, by a student or a group of students, is completely prohibited. Such misdemeanors would be liable to penalties as severe as expulsion and rustication.
17. Use of loud speakers / amplifiers, megaphone is prohibited in the premises of the University.
18. No student will be allowed to park his / her car inside the premises of the college / University unless specifically allowed

by the competent authority.

(A) SUSPENSION

A student shall be liable for suspension upto six months if he/she commits any of the following act:-

1. Misbehaves or quarrels with any teacher or member of the staff.
2. Is generally disobedient.
3. Spreads false rumours.
4. Uses unbecoming, indecent or filthy language.
5. Incites other students to violence.
6. Is inappropriately dressed.
7. Shouts, abuses, quarrels or fights with fellow students.
8. Raises slogans to hurt others, politically or religiously.
9. Interferes with the administration, including the mode or schedule of the examination.
10. Indulges in acts of immorality.
11. Indulges in any kind of political activity including displaying posters or play cards within the College.
12. Remains absent continuously for more than 4 weeks without prior permission.

(B) RUSTICATION

A student may be rusticated for a period of 3 years due to any of the following acts:-

1. Taking forceful possession, making unauthorized use or damaging any property.
2. Involving himself in any agitational activity.
3. Found indulging in activities, prejudicial and detrimental to the good order of the College.
4. Adopting unfair means during examination.
5. Disobeying an order of suspension passed against him.
6. Any other act, which the principal or the disciplinary committee considers inappropriate.
7. Anybody who does not submit the prescribed undertaking about non-involvement in political activities.

NOTE:-

Any student suspended or rusticated for the reasons mentioned above shall not be allowed to appear in the examinations.

(C) EXPULSION

A student is liable to be expelled from the college if he/she commits any of the following act and this order shall be final and irrevocable. If he/she.

1. Is found in possession of fire arms or lethal weapons or Narcotic drugs in the college premises, hostels, examination halls, teaching hospitals or any other area as specified by the university administration.
2. Remains absent for more than three months without permission of the Principal / Director, his/her admission shall be cancelled by the disciplinary committee of that college / institute.

STUDENT'S DISCIPLINARY RULES & PROCEDURE

Any student indulging in conduct contrary to the above mentioned rules shall be dealt with in accordance with the Dow University of Health Sciences Conduct Rules and the procedure mentioned below:

1. Each constituent college will have a Disciplinary Committee to be notified with the approval of the Vice Chancellor to deal with all the disciplinary matters.
2. The Principal on suo moto or on any complaint, may initiate action against any student of the college and refer the case to the Disciplinary Committee of the college for appropriate recommendation.
3. Before taking any action, the Principal shall serve a show cause notice to the student indicating briefly the charges against him. The accused student will have to give a written reply within seven days. He/She will be afforded a chance for personal hearing after which the Principal of the constituent college is empowered to suspend, rusticate or expel the student.
4. The student to whom the Principal has suspended, rusticated or expelled from the college may make appeal to the Vice Chancellor against the decision of the Principal within 30 days.
5. Any student whose name appears in the F.I.R. pertaining to any non-bailable offence as specified in the criminal procedure code (Cr.P.C.) will be suspended. During the pendency of the case he/she will not be allowed classes or take up any examination.

DRESS CODE

ALL STUDENTS MUST WEAR WHITE COAT IN THE CAMPUSES OF DMC AND OJHA CAMPUS (WITH A TAG HAVING NAMED AND CLASS) AND DECENT SHOES / SANDLE BUT NO SLIPPERS, IN CASE OF DEFAULT THEY WILL NOT BE ALLOWED TO ENTER OR A DISCIPLINARY ACTION WILL BE TAKEN.

ATTENDANCE

STUDENTS HAVING ATTENDANCE IN THE CLASS OF LESS THAN 75% WILL NOT BE ALLOWED TO APPEAR IN THE EXAMINATION.

RULES FOR LIBRARY

- 1. One book can be borrowed from the library at one time.**
 - Books will not be issued without library card.
 - Book can be borrowed for a maximum period of 3 days.
 - There is no lending facility for reference books, CD's periodicals and newspapers.
- 2. Any title in the lending section can be reserved in advance, Please make request at the library desk.**
- 3. The following rules pertain to re-issuance of books.**
 - Books can be issued consecutively two times only.
- 4. A late fine will be charged if book is returned late.**
 - Rs. 30/= per book per day.
- 5. The following rules pertain to book lost / damaged.**
 - In case of damage, full price of the book will be charged.
 - In case of loss, 200% price of the book will be charged.
 - No marking, either in pencil, pen or highlighter is allowed on the books. The book will be inspected at the time of return. In case books are found marked, a fine of Rs. 50 will be charged.
- 6. Reference books will not be issued for photocopy.**
- 7. Membership can be cancelled for a minimum period of 10 days and this period can be increased in case the student is found continuing violation of rules of library.**

Financial Assistance

- Financial assistance is provided to the students through various Prime Minister Scheme such as Ehsaas Scholarship, HEC Need Based Scholarship Sindh Endowment Fund and Ahsan trust sponsored by Meezan bank based on merit cum need basis and etc.
- The university also provides installment facility to the needy and deserving students.

Rules for withdrawal after admission in Pharm.D Program

A candidate who leaves/withdraws before completion of the five year degree program of Pharm.D course for any reason, he/she will submit a Payorder/Demand Draft of **Rs. 3,00,000 (Rupees Three Lac) for open merit** and **Rs. 5,00,000 (Rupees Five Lac) Self finance seat** that only will be payable to Dow University of Health Sciences as a penalty for wasting a precious seat.

NO OF STUDENTS GRADUATED AND STUDYING

Currently 478 Students are enrolled in morning shift in all five batches.

253 students are enrolled in five batches of the Pharm.D Evening program.

PHARM.D ODD & EVEN SEMESTER 2023

BATCH	YEAR	SEMESTER	NO. OF STUDENTS (Morning)	NO. OF STUDENTS (EVENING)	TOTAL
2022	1ST YEAR	1ST	100	53	153
2021	2ND YEAR	3RD	90	47	137
2020	3RD YEAR	5TH	92	51	143
2019	4TH YEAR	7TH	100	52	152
2018	5TH YEAR	9TH	96	50	146

TOTAL	478	253	731
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To date, **Eleven Batches of Pharm.D program** have graduated from this institute. Almost **1297 passed out Pharmacy graduates.**

Facilities and Salient Features

- There are Spacious class rooms with Audio Visual facilities and centrally air condition for lecture delivery as per advanced teaching methodology, tutorial rooms, animal house, medicinal garden, examination hall and seminar hall for academic activities of the students.
- Excellent laboratory facilities are provided to students where they can work and learn properly. The laboratories are well equipped spacious space laboratories for hands on training during education with latest equipment/machines
- Well provided Library with all types of books and Research Journals on all topics that will be taught to you.
- Digital Library with more than 200 separate working stations for each student for hands on training of Computer and advanced software applications in Pharmacy.
- There is fully maintained animal house that provides animals for the smooth execution of pharmacological experiments.
- Students are properly evaluated through well-structured and organized examination system.
- Regular seminars, workshops and conferences are organized for the dissemination of updated knowledge. Frequent career counseling sessions are also conducted.
- Students are with facility of mentorship in academic and administrative affairs.
- There is also a network of alumni for students' facilitation and inspiration.
- Students are also encouraged to participate in the student's week organized by university that includes sport week, talent show, cooking, body building, singing and poetry competition etc.
- Centralized mosque and spacious cafeteria are also available in the university premises.

FACILITIES

In house Facilities :



Pharmaceutics Lab



Microbiology Lab



Pharmaceutical Chemistry Lab



Pharmacology Lab



Pharmacognosy Lab



Industrial Pharmacy Lab

Systemic and Molecular Pharmacology Research Lab



Pharmaceutics Research Lab



Pharmaceutical Chemistry Research Lab



Hospital and Clinical Pharmacy



Common Rooms, Souvenir Shop and Well Planned Campus Space



Well Equipped Lecture Halls



**Well Provided Library with all Types of Books
and Reseach Journals on all Topic**





Digital Library at DCOP





Digital Library Facility in Main Library Block, Ojha Campus. > 200 Work Stations



Animal House at Ojha Campus





Medicinal Herbal Garden





Plantation Activity in Medicinal Herbal Garden of Dow College of Pharmacy.





Gymnasium facility at Ojha Campus



Cricket ground facility at Ojha Campus



Guest lecture for Final Year on Dermatologist and Cosmetologist organized by Department of Pharmacology.

A Guest lecture for final year (Morning and Evening) was organized. Speaker: Dr. Naveed Alvi, Dermatologist and Cosmetologist, Alkhaleej Clinics, in collaboration with Sante Pharma.

Venue: Building C, Hall Ground floor Date: Wednesday, 9th August, 2023 Time 10am Sharp.







DEPARTMENT OF PHARMACEUTICS

A symposium on " Role of pharmacist in DRAP: a regulatory landscape of Pakistan" organized by Department of Pharmaceutics. was arranged for final year students (Morning & Evening) on Wednesday, 8th March new building, DCOP, DUHS.



DEPARTMENT OF PHARMACOGNOSY

A guest lecture was organized by Department of Pharmacognosy for 4th year students (morning & evening) on 9th March 2023, on “Application of Nanotechnology in Herbal drug and natural products: A new approach for natural drug development” at building C, Dow College of Pharmacy.



DEPARTMENT OF PHARMACY PRACTICE

An interactive seminar on “Use of End note in Pharmaceutical Sciences” was organized by Department of pharmacy practice on 16 March 23 at Building C, DCOP.



Prime Minister's Program Green Youth Movement Club DUHS "Clean and Green Karachi, What Our Youth Do On Sustainable Development Goal " on 31st May, 2023.



PRIME MINISTER'S PROGRAM OF
GREEN YOUTH MOVEMENT CLUB
AT DOW UNIVERSITY OF HEALTH SCIENCES
(GYM-DUHS)



On behalf of

Vice Chancellor, DUHS

You are cordially invited to attend the
Prize Distribution Ceremony
of the Proposal Writing Competition organized by the

GYM-CLUB DUHS

on the topic of



CERTIFICATE AND PRIZE DISTRIBUTION CEREMONY

09:00 am | Wednesday | 31st May 2023
Auditorium of New Building DCOP

- **Certificate and prize distribution ceremony of proposal writing competition on “Clean and Green Karachi”, Prime Minister’s Program of green youth movement club (GYM-DUHS) was held on 31st May 2023 at Dow College of Pharmacy, Dow University of Health Sciences.**



- Open house session was organized on 8 June 23 by Faculty of Pharmaceutical Sciences, Dow university of health sciences, Karachi.



INDUSTRIAL VISIT FOR OUR PHARM.D STUDENTS





HOSPITAL VISIT FOR OUR PHARM.D STUDENTS

Hospital visit is an important phase of learning. It provides student an exposure of the different

practical approaches applied in clinical settings. The basic goal of hospital visit is to observe how the theoretical approaches studied during university, are being implemented in practical environment. A visit to Indus Hospital was organized by Dow College of Pharmacy, Dow University of Health Sciences on from 9-11 March 23 for final year students. During the visit, students were shown how the range of clinical services are performed in hospital. The Indus Hospital and Health Network is a tertiary care multidisciplinary hospital and healthcare system in Pakistan. It is located in Korangi. It is the first paperless hospital in the country; the hospital has an e-cardiology system.



INDUSTRIAL TRIPS OF FINAL YEAR STUDENTS

BAYER PHARMACEUTICAL PAKISTAN



BOSCH PHARMACEUTICALS PVT LTD

14th August Celebration



FACULTY AT DOW COLLEGE OF PHARMACY



1. Department of Pharmacology

S.#	Name	Designation
1	Prof. Dr. Sumbul Shamim	Professor & PRINCIPAL Chairperson, Dept. of Pharmacology
2	Prof. Dr. Noor Jahan	Professor & DEAN Faculty of Pharmaceutical Sciences
3	Dr. Saima Mahmood	Associate Professor Dept. of Pharmacology
4	Dr. Shumaila Aman	Assistant Professor Dept. of Pharmacology
5	Dr. Hina Abrar	Assistant Professor Dept. of Pharmacology
6	Dr. Faheema Siddiqui	Assistant Professor Dept of Pharmacology
7	Dr. Auwais Ahmed khan	Assistant Professor Dept. of Pharmacology
8	Dr. Hira Hanif	Assistant Professor Dept. of Pharmacology
9	Dr. Hina Tabassum	Instructor Dept. of Pharmacology
10	Dr. Noor ul Ain Kamran	Research Assistant Dept. of Pharmacology
11	Dr. Aqsa Mushtaq	IPFP Fellow Dept. of Pharmacology

2. Department of Pharmaceutics

S.#	Name	Designation
1	Prof. Dr. Rabia Bushra	Dean, Faculty of Pharmaceutical Sciences & Chairperson, Dept. of Pharmaceutics
2	Dr. Hafiz Muhammad Arshad	Associate Professor & VICE PRINCIPAL, Dept. of Pharmaceutics
3	Dr. Tariq Ali	Associate Professor Dept of Pharmaceutics
4	Dr. Anab Fatima	Associate Professor Dept of Pharmaceutics
5	Dr. Mahwish Rizvi	Associate Professor Dept of Pharmaceutics
6	Dr. Riffat Yasmin	Assistant Professor Dept of Pharmaceutics
7	Dr. Shumaila Shafique	Assistant Professor Dept of Pharmaceutics
8	Dr. Wajiha Iffat	Assistant Professor Dept of Pharmaceutics
9	Dr. Sana Ghayas	Assistant Professor Dept of Pharmaceutics
10	Dr. Syed Ahsan Ali	Assistant Professor Dept of Pharmaceutics
11	Dr. Hina Saleem	Assistant Professor Dept of Pharmaceutics
12	Dr. Omer Mustapha	Assistant Professor Dept of Pharmaceutics
13	Dr. Syed Saoud Zaidi	Assistant Professor Dept of Pharmaceutics
14	Dr. Rahila Bano	Assistant Professor Dept of Pharmaceutics
15	Dr. Saba Inayat Ali	Lecturer Dept of Pharmaceutics

3. Department of Pharmaceutical Chemistry

S.#	Name	Designation
1	Dr. Moona Mehboob Khan	Associate Professor Incharge, Dept of Pharm. Chemistry
2	Dr. Mahwish Akhtar	Assistant Professor Dept of Pharm. Chemistry
3	Dr. Sana Shamim	Assistant Professor Dept of Pharm. Chemistry
4	Dr. Wajiha Gul	Assistant Professor Dept of Pharm. Chemistry
5	Dr. Sabahat Naeem	Assistant Professor Dept of Pharm. Chemistry
6	Dr. Rabya Munawar	Assistant Professor Dept of Pharm. Chemistry
7	Dr. Faisal Muhammad Khan	Lecturer Dept of Pharm. Chemistry
8	Dr. Sadia Iqbal	Lecturer Dept of Pharm. Chemistry

4. Department of Pharmacognosy

S.#	Name	Designation
1	Dr. Farah Saeed	Associate Professor Incharge, Dept. of Pharmacognosy
2	Ms. Umbreen Farrukh	Assistant Professor Dept of Pharmacognosy
3	Dr. Tehseen Quds	Assistant Professor Dept. of Pharmacognosy
4	Dr. Hina Zahid	Assistant Professor Dept. of Pharmacognosy
5	Dr. Hina Yasin	Assistant Professor Dept. of Pharmacognosy
6	Dr. Madiha Khan	Lecturer Dept. of Pharmacognosy
7	Dr. Erum Shah.	Lecturer Dept. of Pharmacognosy

5. Department of Pharmacy Practice

S.#	Name	Designation
1	Dr. Fakhsheena Anjum	Associate Professor & Incharge, Dept of Pharmacy Practice
2	Dr. Najia Rahim	Associate Professor Dept of Pharmacy Practice
3	Mr. Imran Ahsan Mallick	Assistant Professor Dept of Pharmacy Practice
4	Dr. Sadia Shakeel	Assistant Professor Dept of Pharmacy Practice
5	Dr. Kashif Ali	Assistant Professor Dept. of Pharmacy Practice
6	Dr. Ale Zehra	Assistant Professor Dept. of Pharmacy Practice
7	Dr. Farah Khalid	Lecturer/ Pharmacist Dept of Pharmacy Practice

