

# MESSAGE FROM THE VICE CHANCELLOR



**Prof. Mohammed Saeed Quraishy** Vice Chancellor Dow University of Health Sciences

As the Vice Chancellor of Dow University of Health Sciences, it is my pleasure to welcome you to one of Pakistan's leading medical universities. Since its inception in 2004 with just three constituent colleges,

DUHS has grown into a thriving academic institution with over 30 constituent and affiliated institutions, now recognized as one of Pakistan's most comprehensive health systems.

This year, I am particularly proud to announce DUHS's continued progress toward our vision of being a preeminent academic institution dedicated to transforming lives through education, healthcare, and innovation. Our global accomplishments, especially within Asia, are a testament to the hard work of our dedicated faculty, who are committed to enhancing the learning experience and expanding our impact.

Founded as Dow Medical College in 1945, our university has a longstanding tradition of scholarship and service to the community. Today, DUHS offers a broad range of programs, from allied health and biomedical sciences to fields such as pharmacy, physical therapy, medical technology, biotechnology, nursing, public health, business administration, radiology technology, psychology, nutritional sciences, midwifery, and optometry.

Our commitment to academic excellence is reflected in our adoption of cutting-edge technology and the affordable, state-of-the-art healthcare provided by Dow University Hospital and our affiliated healthcare centers, research facilities, and diagnostic labs. We are dedicated to building an infrastructure that promotes innovation and research, preparing us to meet the needs of the future while delivering high-quality healthcare services.

To the incoming freshmen, I am confident that your journey at DUHS will prepare you to contribute with dedication, integrity, and compassion—upholding the highest standards of healthcare, both nationally and globally.

Good luck to each of you as you embark on this rewarding path!

# MESSAGE FROM 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

# MESSAGE FROM THE DEAN



Prof. Dr. Rabia Bushra DEAN 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

# **VISION STATEMENT DUHS**

To Be a Pre-Eminent Academic Institution Committed to Changing and Saving Lives

# **MISSION STATEMENT DUHS**

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. Faculty of Pharmaceutical Sciences, Dow College of Pharmacy is a distinguished and well renowned institute working under the portal of Dow University of Health Sciences and is recognized by Pharmacy Council of Pakistan and Higher Education Commission of Pakistan.

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 47 highly qualified faculty members, out of which 32 hold a PhD degree in their relevant field and are also HEC approved research supervisors. College of Pharmacy is currently offering Pharm-D (Morning and Evening), MPhil and PhD Programs.

Till 2024, twelve 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.



Three buildings of Dow College of Pharmacy

# **OVERVIEW OF DOW COLLEGE OF PHARMACY**

## **INTRODUCTION:**

#### **Pharm-D Program**

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, 735 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 47 highly qualified faculty members, with 32 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 2024, twelve 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 is comprised of three spacious 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 college 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. Also, 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 Pharmacology, Neurosciences and Inflammatory Pharmacology, Anti-microbials etc.

#### **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 cosmeceuticals, nutraceuticals and exploration of new herbal drugs.

#### PHARMACY PRACTICE

Department of Pharmacy Practice was established in the year 2014 Dec. 22<sup>nd</sup>, 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).

## **OBJECTIVES OF THE PROGRAM**

The objectives are to prepare graduates who will have the capacity, up-to-date knowledge, strong ethical values, behavior, communication, writing and social skills that will enable them to pursue careers in:

1. Pharmaceutical care in health systems and community environment where appropriate medication usage and patient's safety is paramount.

2. Pharmaceutical industry and its quality systems.

3. Academia, research and development.

### **OBJECTIVES INCLUDE:**

1. To keep pace with the advancements in the modern sciences.

2. To prepare the students to fulfill the industrial needs and they should be well versed with the basic medical and pharmaceutical sciences in order to prepare a dosage regimen for an individual patient.

3. Community pharmacy practice should be comprehensive.

4. Internship in various disciplines of Pharmacy should be implemented.

5. Update the syllabi of the Pharmacy keeping in view the current proposals, requirements and the Needs of the profession.

6. To make our graduates more skillful, competitive and knowledgeable both practically and theoretically.

7. To cater the local and international pharmacy needs.

8. Uniformity in the curriculum of Pharmacy at National level.

9. Credit hours should be harmonized i.e. practical and theory credit hours.

10. To make a health care practitioner who is expert in the use of medicine in all practical fields and are capable of disease state management specially to improve public health at large.

11. Upon graduation, the graduates should have the capacity, knowledge and capability to undertake career in:

a) Enhance patient safety to safe medication usage in community and health care systems

b) To work in the pharmaceutical industry and its quality system

c) To engage in academics and research i.e. Practice and Academics.

d) To prepare students as good human beings in serving the community i.e., ethics, communication skills, writing skills, behavior etc.

e) After graduation, he/she should become a member of health care team.

f) To help the stakeholders of pharmacy about the implications of WTO and TRIPS.

12. The syllabi should be more practical rather theoretical.

13. To include innovations regarding OTC Pharmacy (Patient Pharmacist interaction).

14. To prepare pharmacy graduates for better pharmacy practice in the areas including clinical pharmacy, community pharmacy, hospital pharmacy and industrial pharmacy.

15. To add further in the curriculum clinical oriented areas as per demand of Pharm-D degree.

16. To update the current syllabi according to the needs of the national and international demand.

17. To develop graduates capable of catering the needs of national and international health organizations or authorities to help adapt the paradigm shift in the health care system.

18. To bring uniformity in the contents of the syllabi in line with International trends/ international universities imparting Pharm-D education.

19. To produce the graduates to meet the challenges of 21st century of health care problems.

# PROGRAMS OFFERED AT DOW COLLEGE OF PHARMACY

## Under graduate:

Doctor of Pharmacy (Pharm-D) (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 overthe-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 OF PHARM-D**

- HSSC (Pre-Medical)/ A-Level or equivalent examination duly certified by IBCC with minimum 60% marks
- Minimum passing marks in entry test shall be 25%
- Candidate's Domicile & PRC (of Sindh Province)

# NUMBER OF SEATS OF PHARM-D

| 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 or equivalent and Inter / A Level or equivalent with 60% marks.
- 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 2024-25**

|                               |            | Amount in PKR. |
|-------------------------------|------------|----------------|
| FEE TYPE                      | Open Merit | Self-Finance   |
| Admission Fee<br>(Once only)  | 50,000     | 60,000         |
| Tuition Fee<br>(Yearly)       | 200,000    | 350,000        |
| Transportation Fee (Optional) | 43,000     | 43,000         |
| (Yearly)                      |            |                |
| Documentation Verification    | 5,000      | 5,000          |
| Charges (Once only)           |            |                |
| Library Fee                   | 10,000     | 10,000         |
| (Yearly)                      |            |                |
| Student Activity Fee          | 10,000     | 10,000         |
| (Yearly)                      |            |                |
| TOTAL                         | 318,000    | 478,000        |

## **RULES FOR THE PAYMENT OF FEE**

- 1. Fees of succeeding years are to be paid within ONE MONTH of issuance of fee vouchers or within the due date provided.
- 2. In case the fee is not submitted during the given specified time, late payment charges will be charged as follows:

| First Month (After Lapse of First Month) | 2.5% |
|--|------|
| Second Month                             | 5%   |
| Third Month                              | 7.5% |
| Fourth Month                             | 10%  |

After four months of non-payment, the seat is liable to be cancelled and student will not be allowed to appear in any examination

- 3. Fee of all categories shall be increased by 10% every year.
- 4. Fee deposited is refundable as per the Refund Policy guidelines of the DUHS.
- 5. Taxes will be applied as per the FBR and Government rules.
- 6. Hostel and Transport fee will be valid till the December of every year.
- 7. Amounts stated in the fee vouchers are excluded of all Bank charges .
- 8. The Fee Structure may be revised by the university at any time during the course of the study, due to unavoidable circumstances.
- 9. Associated fees will be charged as per fee structure.

# **ACCREDITION DETALS 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)".

<u>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</u> <u>Pharmacy Council of Pakistan and Higher Education Commission of Pakistan.</u>



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  |   |  |
|---|---|---|--|---|--|
| SUBJECT                                   | CR<br>HR  | COURSE<br>NO  | SUBJECT  | CR<br>HR  |  |
| English-A (F English)                     | 2   | ENG-301   | English-B (Communication & Writing skills)   | 2   |  |
| Physical Pharmacy-I [Th]                  | 3   | PD-302  | Physical Pharmacy-II [Th]  | 3   |  |
| Physical Pharmacy-I [Lab]                 | 1   | PD-304  | Physical Pharmacy-II [Lab]   | 1   |  |
| Pharmaceutical Mathematics                | 3   | PD-306  | Pharmaceutical Organic<br>Chemistry-II [Th]  | 3   |  |
| Pharmaceutical Organic Chemistry –I [Th]  | 3   | PD-308  | Pharmaceutical Organic<br>Chemistry-II [Lab]   | 1   |  |
| Pharmaceutical Organic Chemistry –I [Lab] | 1   | PD-310  | Pharmaceutical Biochemistry-II<br>[Th]   | 3   |  |
| Pharmaceutical Biochemistry-I [Th]        | 3   | PD-312  | Pharmaceutical Biochemistry-II<br>[Lab]  | 1   |  |
| Pharmaceutical Biochemistry-I [Lab]       | 1   | PD-314  | Physiology - II [Th]   | 3   |  |
| Physiology - I [Th]                       | 3   | PD-316  | Physiology [Lab]   | 2   |  |
| 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  |  |
|   | SUBJECT   English-A (F English)   Physical Pharmacy-I [Th]   Physical Pharmacy-I [Lab]   Pharmaceutical Mathematics   Pharmaceutical Organic Chemistry –I [Th]   Pharmaceutical Organic Chemistry –I [Lab]   Pharmaceutical Biochemistry-I [Th]   Pharmaceutical Biochemistry-I [Lab]   Pharmaceutical Biochemistry-I [Lab]   Pharmaceutical Biochemistry-I [Th]   Anatomy & Histology-I [Th] | SUBJECTCR<br>HREnglish-A (F English)2Physical Pharmacy-I [Th]3Physical Pharmacy-I [Lab]1Pharmaceutical Mathematics3Pharmaceutical Organic Chemistry –I [Th]3Pharmaceutical Organic Chemistry –I [Lab]1Pharmaceutical Biochemistry-I [Th]3Pharmaceutical Biochemistry-I [Lab]1Pharmaceutical Biochemistry-I [Lab]1Pharmaceutical Biochemistry-I [Lab]2Instruction of the physiology - I [Th]3Anatomy & Histology-I [Th]2 | SUBJECTCR<br>HR<br>NOCOURSE<br>NOEnglish-A (F English)2ENG-301Physical Pharmacy-I [Th]3PD-302Physical Pharmacy-I [Lab]1PD-304Pharmaceutical Mathematics3PD-306Pharmaceutical Organic Chemistry –I [Th]3PD-308Pharmaceutical Organic Chemistry –I [Th]3PD-310Pharmaceutical Biochemistry-I [Th]3PD-312Pharmaceutical Biochemistry-I [Lab]1PD-314Pharmaceutical Biochemistry-I [Lab]1PD-314Pharmaceutical Biochemistry-I [Lab]2PD-316Anatomy & Histology-I [Th]2PD-318PD-320 | SUBJECTCR<br>HRCOURSE<br>NOSUBJECTEnglish-A (F English)2ENG-301English-B (Communication &<br>Writing skills)Physical Pharmacy-I [Th]3PD-302Physical Pharmacy-II [Th]Physical Pharmacy-I [Lab]1PD-304Physical Pharmacy-II [Lab]Pharmaccutical Mathematics3PD-306Pharmaccutical Organic<br>Chemistry-II [Th]Pharmaccutical Organic Chemistry –I [Th]3PD-308Pharmaccutical Organic<br>Chemistry-II [Lab]Pharmaccutical Organic Chemistry –I [Lab]1PD-310Pharmaccutical Biochemistry-II<br>[Th]Pharmaccutical Biochemistry-I [Th]3PD-312Pharmaccutical Biochemistry-II<br>[Lab]Pharmaccutical Biochemistry-I [Lab]1PD-314Physiology - II [Th]Pharmaccutical Biochemistry-I [Lab]2PD-316Physiology [Lab]Anatomy & Histology-I [Th]2PD-318Anatomy & Histology [Lab] |  |

# 2<sup>nd</sup> Professional Pharm-D

|         | Semester-III   |    |         | Semester-IV  |       |  |
|---------|--|----|---------|--|-------|--|
| Course  | Subject  | Cr | Course  | Subject  | Cr Hr |  |
| No      |  | Hr | No      |  |       |  |
| ISL-400 | Islamic Studies  | 2  | PKS-401 | Pakistan Studies   | 2     |  |
| PD-401  | Pharmaceutical Microbiology and<br>Immunology- I [Th]        | 3  | PD-402  | Pharmaceutical Microbiology and<br>Immunology - II [Th]        | 3     |  |
| PD-403  | Pharmaceutical Microbiology and<br>Immunology -I [Lab]       | 1  | PD-404  | Pharmaceutical Microbiology and<br>Immunology -II [Lab]        | 1     |  |
| PD-405  | Pharmaceutical Preparation and Dosage<br>form Science-I [Th] | 3  | PD-406  | Pharmaceutical Preparation and Dosage<br>form Science -II [Th] | 3     |  |
| PD-407  | Pharmaceutical Biostatistics                                 | 3  | PD-408  | Pharmaceutical Preparation and Dosage<br>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      | Subject  | Cr | Course       | Subject   | Cr |  |
| No          |  | Hr | No           |   | 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<br>Pharmacy [Th]          | 3  |  |
| PD-507      | Pathology [Lab]  | 1  | PD-508       | Computer & its Application in<br>Pharmacy [Lab]         | 1  |  |
| PD-509      | Pharmaceutical Analysis and<br>Instrumentation-I [Th]  | 3  | PD-510       | Pharmaceutical Analysis and<br>Instrumentation-II [Th]  | 3  |  |
| PD-511      | Pharmaceutical Analysis and<br>Insturmentaion-I [Lab.] | 1  | PD-512       | Pharmaceutical Analysis and<br>Insturmentaion-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<br>[Th]              | 3  | PD-518       | Community Pharmacy [Th]                                 | 3  |  |
| PD-519      | Compounding & Dispensing Pharmacy<br>[Lab]             | 1  |              |   |    |  |
|             | Total Cr. Hr   | 19 |              | Total Cr. Hr  | 19 |  |

# 4<sup>th</sup> Professional Pharm-D

| Course<br>No | Subject                                   | Cr<br>Hr | Course<br>No | Subject                                       | Cr<br>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<br>Management-II [Th]  | 3        |
| PD-609       | Pharmaceutical Quality Management-I [Lab] | 1        | PD-610       | Pharmaceutical Quality<br>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       |

# 5<sup>th</sup> Professional Pharm-D

| Semester IX |  |    | Semester X        |  |    |
|-------------|--|----|-------------------|--|----|
| Course      | Subject                                      | Cr | Cr Course Subject |  | Cr |
| No          |  | Hr | No                |  | 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 &<br>Pharmacokinetics -II [Th]  | 3  |
| PD-713      | Medicinal Chemistry- III [Th]                | 3  | PD-714            | Biopharmaceutics &<br>Pharmacokinetics [Lab]     | 2  |
| PD-715      | Medicinal Chemistry- II [Lab]                | 1  | PD-716            | Pharmaceutical Marketing &<br>Management-II [Th] | 3  |
|             | Total Cr. Hr                                 | 19 |                   | Total Cr. Hr                                     | 19 |

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

# **SUMMARY OF COURSES (Cr. Hrs)**

## 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 examinations.
- 8. Distribution of 100 marks for Theory papers is as follows:
  - i. 30 Marks for Internal Evaluation (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.
  - i. 30 Marks for Internal Evaluation
  - ii. 70 Marks for Terminal examination

## 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.

### **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).

|                                       | 8   |       |
|---------------------------------------|-----|-------|
| Marks obtained in<br>Percentage Range | GPA | GRADE |
| 80-100                                | 4.0 | A+    |
| 75-79                                 | 4.0 | А     |
| 70-74                                 | 3.7 | A-    |
| 67-69                                 | 3.3 | B+    |
| 63-66                                 | 3.0 | В     |
| 60-62                                 | 2.7 | B-    |
| 56-59                                 | 2.3 | C+    |
| 50-55                                 | 2.0 | С     |
| 00-49                                 | 0.0 | F     |
| Absent                                | 0.0 | Abs   |

## Grading

# **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 inpolitical 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 ATTENDENCE 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 changed 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.

# **NUMBER OF STUDENTS GRADUATED AND STUDYING**

Currently 481 students are enrolled in morning shift in all five batches.

254 students are enrolled in five batches of the Pharm-D evening program.

# PHARM-D STUDENTS' STRENGTH IN 2024

| ВАТСН | YEAR     | SEMESTER | NO. OF<br>STUDENTS<br>(Morning) | NO. OF<br>STUDENTS<br>(EVENING) | TOTAL |
|-------|----------|----------|---------------------------------|---------------------------------|-------|
| 2023  | 1ST YEAR | 1ST      | 102                             | 54                              | 156   |
| 2022  | 2ND YEAR | 3RD      | 100                             | 52                              | 152   |
| 2021  | 3RD YEAR | 5TH      | 87                              | 44                              | 131   |
| 2020  | 4TH YEAR | 7TH      | 95                              | 52                              | 147   |
| 2019  | 5TH YEAR | 9TH      | 97                              | 52                              | 149   |
|       |          |          |                                 |                                 |       |

| TOTAL | 481 | 254 | 735 |
|-------|-----|-----|-----|
|       |     |     |     |

To date, twelve batches of Pharm-D program have graduated from this institute.

Almost 1346 passed out Pharmacy graduates.

# FACILITIES AND SALIENT FEATURES

- There are spacious class rooms with Audio Visual facilities and centrally air conditioned 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-equipped 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 provided 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 :**



**Pharmacetuics** Lab



Microbiology Lab



Pharmaceutical Chemistry Lab



Pharmacology Lab



Pharmacognosy Lab



Industrial Pharmacy Lab

# Systemic and Molecular Pharmacology Research Lab



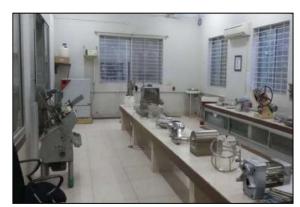




# Pharmaceutics Research Lab















## Pharmaceutical Chemistry Research Lab



## Hospital and Clinical Pharmacy

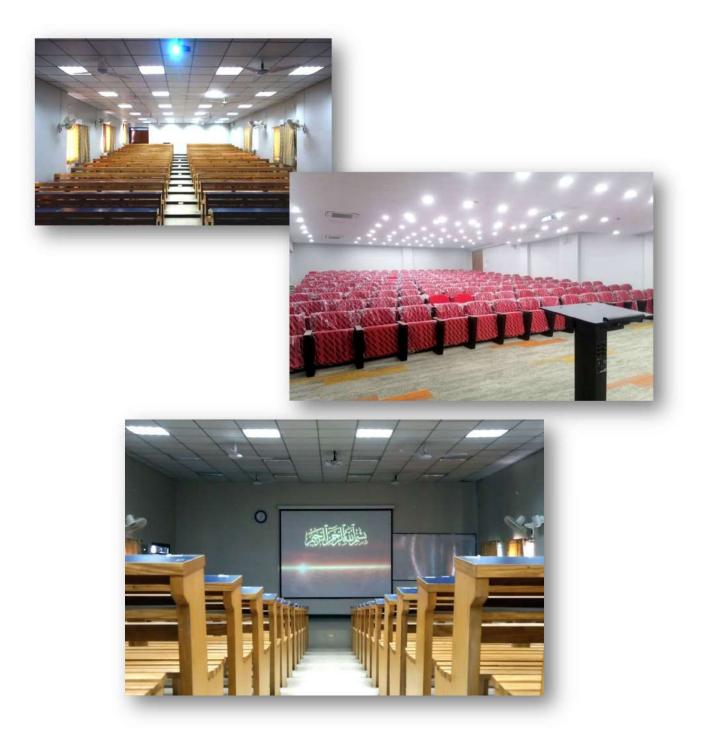




#### Common Rooms, Souvenir Shop and Well-Planned Campus Space



Well-Equipped Lecture Halls



# Well-Equipped Library with all Types of Books and Research Journals on all Topics







# Digital Library at DCOP







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





# Animal House at Ojha Campus













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





# **Medicinal Herbal Garden**









#### **CO-CURRICULAR ACTIVITIES/ SOCIETIES**

# <u>Session on "Launching Endless Career Opportunities in Pharmacognosy with a Global Impact."</u>

Launching Endless Career Opportunities in Pharmacognosy with a Global Impact

The interactive session entitled "Launching Endless Career Opportunities in Pharmacognosy with a Global Impact." was organised by Dr. Farah Saeed, In-charge & MPhil Program Director, Department of Pharmacognosy, Faculty of Pharmaceutical Sciences, Dow University of Health Sciences along with her team of the Department of Pharmacognosy. Prof. Dr. Rabia Bushra, Dean, Faculty of Pharmaceutical Sciences kind motivation and her leadership virtues enabled the faculty of Pharmacognosy to organise the interactive session.

The guest speakers included: Ms. Kashifa Khanum, Head of Quality Operations and R & D Department, Hilton Pharma; Mr Muhammad Sajid, Director of Business Development & Regulatory Affairs, The Searle Company Ltd. Pakistan; Dr. Muhammad Talha Usmani, Sr. General Manager Research & Development (all plants), The Searle Company Ltd. Pakistan; Dr. Amber Taj, Manager Quality Assurance and Compliance/Certified Lead Auditor ISO 9001-2015, ATCO Laboratories Limited; Dr. Midhat Jawed, Group Product Manager, AGP Limited; and Dr. Bisma bint-e-Badar, Executive Officer, Training & SFE, Marketing, Sante Pvt. Ltd.

The purpose of organising the session was to raise awareness among Pharmacists regarding the opportunities awaiting them after pursuing their post-graduate studies in Pharmacognosy.



#### <u>3-Day Hands-On Workshop: Research Tools and Techniques in Pharmaceutical</u> <u>Sciences</u>

This informative 3-day workshop provided participants with valuable insights into essential research tools and techniques used in pharmaceutical sciences. Through a combination of lectures, interactive sessions, and hands-on activities, participants gained knowledge and practical skills in various areas.

#### DAY 1:

Session 1: Application of Design Expert Software in Research Speaker: Prof. Dr. Rabia Bushra Facilitators: Dr. Riffat Yasmeen, Dr. Wajiha Iffat, Dr. Sana Ghayas

Session 2: Application of In Silico Techniques in Healthcare Industry Speaker: Prof. Dr. Noor Jahan Facilitators: Dr. Saima Mahmood Malhi, Dr. Hina Tabassum

Session 3: Role of Protein Modelling In Silico Studies for Drug Action Speaker: Prof. Dr. Sumbul Shamim Facilitators: Dr. Saima Mahmood Malhi, Dr. Shumaila Khan, Dr. Auwais A Khan

#### DAY 2:

Session 4: In Vitro Drug Interactions Studies through Derivative Spectroscopy Speaker: Dr. Moona Mehboob Khan Facilitators: Dr. Rabya Munawar, Dr. Sana Shamim

#### DAY 3:

Session 5: How to Prepare a Questionnaire for Research Speaker: Dr. Faksheena Anjum Facilitator: Dr. Sadia Shakeel

Session 6: Natural Products Drug Recovery: Integrating Artificial Intelligence, Nanotechnology and Molecular Docking Speaker: Dr. Farah Saeed Facilitators: Dr. Hina Yasin, Dr. Hina Zahid

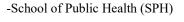






#### **Beach Cleaning Activity by Green Youth Movement (GYM) Club-DUHS**

On the occasion of World Earth Day, The Green Youth Movement (GYM) Club of the DOW UNIVERSITY OF HEALTH SCIENCES organized the cleaning drive at Sea View, Clifton on Saturday 27th April 2024. Students from the following Institutes participated: -Dow International Medical College (DIMC) -Dow College of Pharmacy (DCOP) -Dow College of Biotechnology (DCOB) -Dow School of Dental Care Profession (DSDCP) -Dow Institute of Medical Technology (DIMT) -Institute of Business and Health Care Management (IBHM) -Dow Institute of Nursing and Midwifery (DIoNM)









#### **DUHS Naat Competition**

On 24th April 2024, the DUHS Literary and Debating Society brought the vibrant sounds of Naat recitations to life with the Intra DUHS Naat Competition titled "فكر شه بطحا" Students came together to showcase their deep-rooted connection with spirituality through heartfelt performances. The event was a testament to the talent and diversity within our DUHS community, highlighting the beauty of our religious heritage. Congratulations to the winners and runners-ups!

Boys Category: Winner: Zayam Shahid - Dow College of Pharmacy Runner Up: Ghulam Rasool - Dow Institute of Nursing & Midwifery

Girls Category:

Winner: Umme Hani - Dow Institute of Medical Technology Runner Up: Amna Khalid - Dr. Ishrat ul Ibad Khan Institute of Oral Health Sciences A round of applause for these talented individuals who mesmerized the audience with their beautiful renditions of Naats.







#### **GUEST SPEAKER SESSION ON**

### "How to Excel your career in Regulatory Bodies and Pharma Industry"



#### **DOW PREMIER LEAGUE 2024**

The Dow Premier League 2024 started with a vibrant ceremony at the Dow University of Health Sciences on May 8th, 2024. Pro Vice-Chancellor Dr. Jahan Ara Hasan officially declared the tournament open. The ceremony featured 10 boys' teams and 10 girls' teams, all decked out in colorful jerseys. While the weather conditions weren't ideal, the DUHS sports department displayed remarkable management skills. They took all necessary precautions to ensure the safety and well-being of the participants.

The Dow Premier League will continue with matches leading up to the semi-finals and finals scheduled for May 17th and 18th, 2024.



#### **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 PHARAMCEUTICAL PAKISTAN** 



#### **BOSCH PHARMACEUTICALS PVT LTD**



## 14<sup>th</sup> August Celebration





#### FACULTY AT DOW COLLEGE OF PHARMACY



# **1. Department of Pharmacology**

| <b>S.</b> # | Name                    | Designation                        |
|-------------|-------------------------|------------------------------------|
| 1           | Prof. Dr. Sumbul Shamim | PRINCIPAL, Dow College of Pharmacy |
|             |                         | &                                  |
|             |                         | Professor & Chairperson, Dept. of  |
|             |                         | Pharmacology                       |
| 2           | Prof. Dr. Noor Jahan    | Professor,                         |
|             |                         | Dept. of Pharmacology              |
| 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       | Lecturer                           |
|             |                         | Dept. of Pharmacology              |

# **2. Department of Pharmaceutics**

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

# **3. Department of Pharmaceutical Chemistry**

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

# 4. Department of Pharmacognosy

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

# 5. Department of Pharmacy Practice

| <b>S.</b> # | Name                    | Designation                                |
|-------------|-------------------------|--|
| 1           | Dr. Fakhsheena Anjum    | Associate Professor &                      |
|             |                         | <b>Incharge, Dept of Pharmacy Practice</b> |
| 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                  |