DOW UNIVERSITY OF HEALTH SCIENCES

SCHOOL OF POSTGRADUATE STUDIES

PROGRAM SPECIFICATIONSESSION-2025

Introduction of Institute & Program	Dow College of Pharmacy was established in the year 2007. The aim was to train pharmacists who are a vital part of a complete health care system and can practice in a number of health care settings, including hospitals, clinics, and research institutions. Subsequently, postgraduate programs under the umbrella of Pharmacy were initiated **in the year 2013.** **In addition to the Pharm. D. Program, the M. Phil. &PhD programs have also been recognized by the Pharmacy Council of Pakistan (PCP) and Higher education Commission (HEC) year 2018.** These programs are offered at DCOP through School of Postgraduate Studies (SPGS). To help the overall process of research and academia, various committees of DUHS join hands with us to make it smooth and successful. Scientific committee / PhD advisory committee, Animal & Clinical IRB (Institutional Review Board), and BASR (Board of Advanced Studies & Research) are the important university governed bodies to facilitate researchers. We have inducted our first PhD Pharmacology (Pharmaceutical Sciences) batch in the year 2023 to augment the research environment of DUHS. Presently, 12 students are enrolled in M. Phil Program while 04 candidates are pursuing their PhD at Faculty of Pharmaceutical Sciences to pursue their research career.

Introduction to Program	The university offers full time post-graduate program in the department of Pharmacology, Pharmaceutical Sciences (PS). The program has a comprehensive curriculum in line with HEC guidelines. The PhD program provides options to meet the current challenges being a pharmacologist in the fields of academia, research in medicine, pharmacy and allied health sciences. This program further provides relevant experience and opportunities to carry out focused research in the discipline of Pharmacology under qualified and skilled supervision of faculty. The program involves various components such as: (A) Course work for two semesters (24 credit hours), (B) Synopsis writing and defense according to the rules and regulations drawn by the research department of the university, (C) Original research demanding extensive bench work or clinical work (depending upon the protocol and design selected), (D) Writing and defending thesis (30 credit hours). (E) Comprehensive exam policy for PhD candidates after completion of course work in line with HEC graduate policy 2023. The topics that encompass researches in the department are focused but not limited to following: ➢ Various aspects of basic Pharmacology to clinical and molecular pharmacology. ➢ CVS research; Neuropharmacology; Neurodegenerative disorders, epileptogenesis, Endocrinology; Behavioral pharmacology; Histopathology, Cancer, Inflammation; Infectious diseases; Toxicological studies;

	bioinformatics, a wide range of *In-vivo* & *In-vitro* studies; involving rodents and bacterial pathogens; *In-silico* drug designing for pharmacodynamics studies Instruments & t*echniques (PCR, DNA, RNA extractio*n, ELISA, western blotting); Cell culture technique, Flow cytometer, Plethysmometer, etc. Pharmacovigilance and survey based studies. Further collaborations with other HEIs & Research Institutes facilitate high standards of research work.
Course Title (As approved by PCP/HEC)	**Ph.D. in Pharmacology** ***(The program offers Ph.D. degree in the discipline of Pharmacology)***
Course Duration	Ph.D. 3 Year ------ Max 8 Year
Type of Study	Full Time, Basic and Applied Research
Study System	Semester System
Total Credit Hours	54 Cr. Hrs.
Credit Hours Distribution –Semester Wise	• Semester 1 = 12 Cr. Hrs. • Semester 2 = 12 Cr. Hrs. • Research work & Thesis = 30 Cr. Hrs. **Total 54 Cr. Hrs.**
Study Hours Distribution	One semester is 16 weeks classes teaching, 2 weeks Preparatory Leaves; 2 weeks Exams includes conduct of examinations.
Teaching Hours Distribution	Timetable will be provided to candidates at the start of the session. The details will include activities such as Lectures, Journal clubs, Self-Studies, Lab Training, Research etc.
Course Detail with Credit Hours	**See PhD-course scheme (Annexure-1)**
Assessment of Student	• Internal Evaluation (Assignments, presentations, Quiz/Test) =30 Marks • Terminal Exam= 70 Marks • Comprehensive Exam (No grading, only pass or Fail) • Viva examination after thesis submission and evaluation
Teaching Institution	Dow College of Pharmacy, (Location: OJHA Campus, Karachi)
Degree Awarding Institution	Dow University of Health Sciences, Karachi.

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PhD PROGRAM Pharmacology [New Scheme 2024 onwards] (approved by 29th academic council meeting, May 2024, DUHS)

Semester- I			Semester-II		
COURSE NO	SUBJECT	CR HR	COURSE NO	SUBJECT	CR HR
PCL 801	Applied Research Methodology and statistics in Pharmacy (PSC-I)	3	PCL 802	Cancer chemotherapy and Immunopharmacology	3
PCL 803	Ethics in Pharmaceutical Research (PSC-II)	3	PCL 804	Application of Computational Biology in Pharmacology	3
PCL 805	Pharmaceutical Biotechnology ***(Elective)***	3	PCL 806	Pharmacogenetics and therapeutics of Neurological Disorders ***(Elective)***	3
PCL 807	Medical genetics and gene therapy ***(Elective)***	3	PCL 808	Pharmacogenetics and Therapeutics of Cardiovascular Disorders ***(Elective)***	3
PCL 809	Teaching Assignment /Lab Training-I	3	PCL 810	Teaching Assignment /Lab Training-II	3
PCL 811	Pharmacotherapeutics and Genetics of Infectious Diseases ***(Elective)***	3	PCL 812	Applications of Experimental & Clinical Toxicology ***(Elective)***	3
	Total Cr. Hr to be Completed	**12**		**Total Cr. Hr to be Completed**	**12**

Total Credit Hrs of Course Work (Semester1+2)	**A**	**12+12**
Credit for Research work & Submission of Thesis	**B**	**30**
Grand Total	**A+B**	**24+30=54**

NOTE: Comprehensive Exam for PhD candidates on completion of course work & pass status according to HEC & DUHS postgraduate policies.