

**DOW UNIVERSITY OF HEALTH SCIENCES** SCHOOL OF POSTGRADUATE STUDIES

## **PROGRAM SPECIFICATION-SESSION-2023-24**

Introduction of Institute & Program	Dow College of Pharmacy was established in 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.			
Introduction to Program	<ul> <li>The university offers full time post-graduate program in department of Pharmacology.</li> <li>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 fields of academia, research in medicine pharmacy and allied health sciences.</li> <li>This program further provides relevan experience and opportunities to carry ou focused research in discipline o Pharmacology under qualified and skilled</li> </ul>			
	<ul> <li>The program involves various components such as:</li> <li>(A) Course work for two semesters (24 credit hours),</li> <li>(B) Synopsis writing and defense according to the rules and regulations drawn by the research department of the university,</li> <li>(C) Original research demanding extensive bench work or clinical work (depending upon the protocol and design selected),</li> <li>(D) Writing and defending thesis (06 credit hours).</li> </ul>			
	The topics that encompass researches in the department are focused but not limited to following:			
	<ul> <li>Various aspects of basic Pharmacology to clinical and molecular pharmacology.</li> <li>CVS research; Neuropharmacology; Neurodegenerative disorders, epileptogenesis, Endocrinology; Behavioral pharmacology; Histopathology, Cancer, Inflammation: Toxicological studies:</li> </ul>			



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	bioinformatics, a wide range of <i>In-vivo</i> & <i>In-vitro</i> studies; involving rodents and bacterial pathogens; <i>In-silico</i> drug designing for				
	pharmacodynamics studies				
	Molecular techniques (PCR, DNA, RNA extraction, 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.				
	Ph.D. in Pharmacology				
Course Title (As approved by PCP/HEC)	(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	30 Cr. Hrs.				
Credit Hours Distribution –Semester Wise	<ul> <li>Semester 1 = 12 Cr. Hrs.</li> <li>Semester 2 = 12 Cr. Hrs.</li> <li>Research work &amp; Thesis = 6 Cr. Hrs. Total 30 Cr. Hrs.</li> </ul>				
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, Self- Studies, Lab Training, Research etc.				
Course Detail with Credit Hours	See PhD-course scheme (Annexure-1)				
Assessment of Student	<ul> <li>Internal Evaluation (Assignments, presentations, Quiz/Test) =30 Marks</li> <li>Terminal Exam= 70 Marks</li> <li>Viva examination after thesis submission and evaluation</li> </ul>				
Teaching Institution	(Location: OJHA Campus, Karachi)				
Degree Awarding Institution	Dow University of Health Sciences, Karachi.				



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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 ( <i>Elective)</i>	3	PCL 806	Pharmacogenetics and therapeutics of Neurological Disorders <b>(Elective)</b>	3
PCL 807	Medical genetics and gene therapy (Elective)	3	PCL 808	Pharmacogenetics and Therapeutics of Cardiovascular Disorders <b>(Elective)</b>	3
PCL 809	Teaching Assignment/ Lab Training	3	PCL 810	Teaching Assignment/ Lab Training	3
	Total Cr. Hr to be Completed	12		Total Cr. Hr to be Completed 12	

Total Credit Hrs of Course Work (Semester1+2)	А	12+12
TOTAL CREDIT HOURS (A +B)		24
Credit for Research work & Submission of Thesis	В	06
Grand Total	A+B	24+6=30