



DOW UNIVERSITY OF HEALTH SCIENCES

SCHOOL OF POSTGRADUATE STUDIES

PH D IN PHARMACOGNOSY

PROGRAM SPECIFICATION – SESSION 2026-27

Introduction of Institute & Program

Dow College of Pharmacy was established in 2007 and has emerged as one of the leading pharmacy institutions in Sindh Province. In 2012, it was upgraded to the Faculty of Pharmaceutical Sciences. The Faculty is a distinguished and well-recognized constituent of Dow University of Health Sciences and is recognized by the Pharmacy Council of Pakistan and the Higher Education Commission of Pakistan.

The Ph D Pharmacognosy is a full-time doctoral research program designed to provide advanced knowledge and specialized training in Pharmaceutical Sciences, with particular emphasis on natural sources of medicines, including plants, animals, marine organisms, microorganisms, and minerals. The program focuses on the discovery, procurement, identification, isolation, characterization, evaluation, and development of bioactive compounds and therapeutic agents derived from natural sources.

Ph.D. research in Pharmacognosy encompasses the pharmacological and toxicological evaluation of natural products, drug profiling, clinical applications of natural medicines, herbal formulation development, quality control, and standardization. It also covers the investigation of interactions between natural medicines, conventional drugs, and food products. Other important areas include the development of herbal medicines, cosmeceuticals, nutraceuticals, and novel drugs of natural origin, as well as their industrial production and regulatory considerations.

The program is intended for scholars with a strong academic background in pharmaceutical sciences or related disciplines. It combines advanced coursework with independent, original, and innovative research conducted under the supervision of experienced faculty members. Doctoral scholars are trained in contemporary research methodologies, laboratory techniques, instrumental analysis, pharmacological and toxicological evaluation, formulation development, and data interpretation. Depending on the approved research protocol, the study may



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	involve extensive laboratory, animal, clinical, or field-based investigations. Graduates of the Ph.D. in Pharmacognosy program are prepared to pursue careers in pharmaceutical research and development, academia, regulatory affairs, quality assurance, pharmaceutical manufacturing, herbal and natural-product industries, and related healthcare sectors. They contribute to the advancement of medicine through the scientific exploration, validation, and commercialization of natural products.
Course Title (approved by PCP/HEC)	Doctor of Philosophy (Ph.D) Pharmacognosy
Course Duration	3 -8 years.
Type of Study	Full Time
Study System	Semester System
Total Credit Hours	56 Credit hours
Credit Hours Distribution –Semester Wise	Semester I =13 Semester II =13 Credit Hours for Thesis =30
Study Hours Distribution	Study hours per Semester =16 weeks Examination = 2 weeks Semester Break = 2 weeks Working Days = 8:30am - 3:00pm (except Friday)
Teaching Hours Distribution	Lecture / Tutorials / Journal club/ Self Directed Studies
Modules Detail with Credit Hours	See Annexure- I
Assessment of Student	• Internal Evaluation (Assignments, presentations, Quiz/Test) =30 Marks • Terminal Exam= 70 Marks • Viva Examination after thesis submission and evaluation.
Teaching Institution	Faculty of Pharmaceutical Sciences
Degree Awarding Institution	Dow University of Health Sciences



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ANNEXURE I

Course Scheme PhD Pharmacognosy

Semester 1

Course #	Course Title	Credit hours
PCG-801	Applied Research Methodology and Statistics in Pharmacy (PSC-I)	3
PCG-803	Ethics in Pharmaceutical Research (PSC-II)	3
PCG-805	Natural Product biotechnology (<i>Elective I</i>)	3
PCG-807	Industrial Pharmacognosy (<i>Elective II</i>)	3
PCG-809	Teaching Assignment/ Lab Training	3
PCG-811	Fehme Quran-I/ Ethics-I (<i>Core</i>)	1
PCG-813	Marine Pharmacognosy (<i>Elective III</i>)	3
	Total	13



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Semester 2

Course #	Course Title	Credit hours
PCG-802	Advance Phytopharmaceutical Analysis (Core)	3
PCG-804	Standardization of Phytomedicine (Core)	3
PCG-806	Pharmacokinetics and Pharmacodynamics of Herbal Medicines (Elective IV)	3
PCG-808	Pharmacovigilance of Herbal Medicines (Elective V)	3
PCG-810	Generative AI in Pharmaceutical Research (PSC III)	3
PCG-812	Fehme Quran -II/ Ethics-II (Core)	1
PCG-814	Precision Herbal Medicine: Personalized Approaches to Natural Therapeutics (Elective VI)	3
	Total	13

Ethics I* & Ethics II* for non-Muslims

Semester 3-6

Course Title	Credit hours
Research work + Thesis	30
A. Total Credit Hrs. of Course Work (Semester 1-2)	26
B. Credit Hrs. for Research work & Submission of Thesis (3-6)	30
Grand Total (A + B)	26+30=56